

DEPARTMENT OF COMMERCE

REVISED AGENDA

MARINE PROTECTED AREAS FEDERAL ADVISORY COMMITTEE

Tuesday, February 16, 2005

8:00 a.m. - 5:00 p.m.

Crystal City Hilton
2300 Jefferson Davis Highway
Arlington, Virginia

PARTICIPANTS:

Marine Protected Areas Federal Advisory Committee:

Dr. Tundi Agardy, Sound Seas
 Robert Bendick, The Nature Conservancy
 David Benton, commercial fishing
 Dr. Daniel Bromley, University of Wisconsin, Chair
 Dr. Anthony Chatwin, The Nature Conservancy
 Dr. Michael Cruickshank, Marine Minerals Technology
 Center Associates
 Carol Dinkins, Esquire
 Dr. Rod Fujita, Environmental Defense
 Dr. Delores Garza, University of Alaska
 Eric Gilman, National Audubon Society
 Dr. John Halsey, Michigan Department of State
 Dr. Mark Hixon, University of Oregon
 George Lapointe, Maine Department of Marine
 Resources
 Dr. Bonnie McCay, Rutgers University, Vice-Chair
 Mel Moon, Quileute Natural Resources Department
 Robert Moran, American Petroleum Institute
 Dr. Steven Murray, California State University,
 Fullerton
 Michael Nussman, American Sportfishing Association
 Terry O'Halloran, recreation industry (Hawaii)
 Dr. John Ogden, Florida Institute of Oceanography,
 University of South Florida
 Lelei Peau, American Samoa Department of Commerce
 Dr. Walter Pereyra, commercial fishing
 Max Peterson, International Association of Fish
 and Wildlife Agencies (retired)
 Gil Radonski, sport fishing
 Dr. James Ray, Oceanic Environmental Solutions,
 LLC
 Barbara Stevenson, commercial fishing
 Dr. Daniel Suman, University of Miami
 Cpt. Thomas Thompson, International Council of
 Cruise Lines (retired)
 Kay Williams, Gulf of Mexico Fishery Management
 Council
 Robert Zales II, recreational fishing

Other Participants:

Scott Rayder, NOAA Chief of Staff
 Joseph A. Uravitch, Director, MPA Center
 Tony MacDonald, Executive Director, Coastal States
 Organization

PARTICIPANTS (continued):

Mack Gray, Department of Agriculture

Mary Glackin, Department of Commerce
Donald Schregardus, Department of Defense/Navy
Patrician Morrison, Department of the Interior
Margaret Hayes, Department of State
Rear Adm. Jim Underwood, Department of Homeland
Security
Dr. Brian Melzian, Environmental Protection Agency
Dr. Joseph R. Pawlik, National Science Foundation
Jacqueline Schafer, U.S. Agency for International
Development
Lt. Jeff Pearson, U.S. Coast Guard
Larry Maloney, Department of Interior
Dr. Charles Wahle, National MPA Center
Dr. Ed Houde, University of Maryland
Dr. Patric Christie, University of Washington
Lauren Wenzel, federal designated official
Heidi Recksiek, staff
Lisa Phelps, staff

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1 P R O C E E D I N G S

2 DR. BROMLEY: If I may call us back to order.

3 And today the job is to pick up where we were last
4 evening thinking about this report in a broader sense.

5 Lauren and Heidi overnight prepared a sheet that I
6 believe is at everyone's table called What's Missing
7 from the Synthesis Document. Each of you have that.

8 PARTICIPANT: Good job.

9 DR. BROMLEY: Yeah. Thank you, Heidi and
10 Lauren. They have six issues. They're on that page
11 starting on line 5 and ending on line 46. And then on
12 the other side, other more specific issues show up.
13 These are things that were mentioned yesterday
14 afternoon.

15 In terms of how to proceed today, my proposal
16 would be that we look at these six issues. We have
17 some flip charts. Before we turn to the computer and
18 get too electronic about it, what if we just look at
19 these six issues, see if we're clear about what we have
20 in mind by them, see if perhaps one or two of them
21 relate to each other, and let's start -- and I don't
22 know whether it will take us 15 minutes or half an

1 hour. I don't think we want to spend all that much
2 time on it, but it is important I think.

3 And one of the things that we might work on is
4 which of these things is too big to be resolved right
5 now and which therefore we'll put off to one side for
6 future work, which of these items can be addressed,
7 fixed up rather quickly, and which of these items might
8 require a little work so that a few people might go off
9 and come back to us with some language.

10 So it's kind of a triage process that I have
11 in mind. And if that's agreeable, why don't we go to
12 work on that? Is that okay? We have somebody to staff
13 the flip boards?

14 MS. RECKSEIK: Right here.

15 DR. BROMLEY: All right. So the big issues,
16 regional emphasis. I think what I meant, let me just
17 say what I meant last night was that the word
18 "regional" is used different ways in our document, so
19 the point here is both regional emphasis and
20 specificity about what exactly do we mean by regional?

21 So it's not just the emphasis of it, but what
22 is this idea when we talk about regional concerns in

1 the document.

2 The others I think are pretty clear. So,
3 would anybody like to get us started?

4 MR. LAPOINTE: I will.

5 DR. BROMLEY: Yes, George?

6 MR. LAPOINTE: We might as well get started.
7 You asked a number of questions, Mr. Chairman, and I'm
8 going to -- are there issues that we should take away
9 because they're too big to handle? And I would argue
10 political reality, political will. We could put a
11 statement in mandating it, and it would be worth the
12 paper it's printed on.

13 We have to give some time to that. If we're
14 successful in advising a document on advice about
15 moving this forward, that political reality and will
16 can be developed. But it's nothing we can do anything
17 about, so I would just take that, you know, put that on
18 the Santa Claus list and something to think about
19 later. And it's a big one.

20 Now I'm going to jump to an easier one. Under
21 regional emphasis, first of all, I don't think -- well,
22 I mean, our document explicitly says we want to use

1 existing structures. So I don't think we should try to
2 develop some new regional structure.

3 I think the regional emphasis here was I was
4 talking about connectivity, and Mark tutored me up with
5 the right scientific term, it's biogeographic regions.

6 It's setting up a system, and it could be a regionally
7 based system, based on, you know, the Gulf of Maine
8 current or the North Atlantic oscillation or whatever
9 Mark was talking about.

10 So it's not a defined area. It's not the New
11 England area. It's not the West Coast. It's an area
12 that makes sense biologically. And we probably should
13 add some language to state that.

14 DR. BROMLEY: Would your idea be that two or
15 three people could go away and come back by noon or by
16 two o.'clock with some --

17 MR. LAPOINTE: Yes. I'm going to volunteer
18 myself, Mr. Chairman.

19 DR. BROMLEY: -- with some specific language?

20 Okay. There were two points actually in George's
21 observation. One is that -- let me just summarize.
22 The political will, political reality, whatever, down

1 on line 34, that that's not something we can do
2 anything about, but the way we write our document can
3 give that some traction.

4 Can we just have a little conversation about
5 that? And then if people are satisfied with George's
6 assertion, we can put it off to one side. And then
7 we'll come back to your other part, George.

8 Anybody want to comment on this? Yes, Gil?

9 MR. RADONSKI: I think the political will and
10 reality is the overriding issue. We just can't push it
11 aside. I mean, it's how we're going to sell our
12 document. We have to look at how the Administration is
13 going to look at this. We've got to look at the
14 Administration's response to the Ocean Commission
15 Report.

16 They've already started this flow going, and I
17 don't think we can go against that flow. If we do,
18 we're just going to run amok.

19 DR. BROMLEY: Okay.

20 MR. RADONSKI: I'm not laying out how we
21 should do it.

22 DR. BROMLEY: That's right. But you don't

1 want to put it off to one side?

2 MR. RADONSKI: Well, it's always going to be
3 there.

4 DR. BROMLEY: Yes.

5 MR. RADONSKI: Yeah, we can put it to the
6 side, but we have to recognize that it's the 800 pound
7 gorilla, and it's going to be driving us.

8 DR. BROMLEY: Okay. Good.

9 MR. LAPOINTE: May I respond, Mr. Chairman?

10 DR. BROMLEY: George? Yeah. Let's get a
11 conversation going about this one. So we're really
12 focusing on line 34, the political reality business.

13 MR. LAPOINTE: But look at the title of the
14 document. What's missing from the synthesis document?

15 DR. BROMLEY: I'm sorry. Could you repeat?

16 MR. LAPOINTE: The title, the header, the
17 reason we're here is to finish our document. It's not
18 to ignore political reality.

19 DR. BROMLEY: Yeah.

20 MR. LAPOINTE: I would have been fired a long
21 time ago if I ignored political realities. But it's to
22 say the best way to pay attention to the political

1 realities and the desire to have a system of MPAs is to
2 get our document done.

3 And I don't think we can put a section in
4 there saying a mandatory part of our moving forward is
5 to force political will. We have to develop that. We
6 have to have a good product to develop it.

7 And so it's not to say it's something we don't
8 have to pay attention to. It's just that in the
9 context of finishing our document, we have to have the
10 best document that pays attention to those issues and
11 use that in the context of moving forward politically.

12 DR. BROMLEY: Let me -- okay. Rod? Could I
13 ask the audio -- is there a way to get a little more
14 volume in the room?

15 REPORTER: It's not my board, but I can try.

16 DR. BROMLEY: I have a hard time hearing
17 George. Maybe it's just my ears are going bad. Is
18 everybody happy with the volume? Can everybody here?
19 Is it only me?

20 PARTICIPANT: It's low.

21 DR. BROMLEY: It's low. So who's in charge of
22 this, anybody?

1 MS. RECKSEIK: Bonnie, can we ask the hotel?

2 DR. McCAY: I'll check.

3 PARTICIPANT: Mr. Chairman, if it doesn't
4 interfere with this, we would like a little more light
5 in here, too.

6 DR. BROMLEY: That's true, yeah. Okay. Let
7 me -- okay, Rod?

8 DR. FUJITA: Okay. Well, in the meantime,
9 we'll project.

10 DR. BROMLEY: Wonderful. Way to go.

11 DR. FUJITA: You know, as usual, there's truth
12 in both of these perspectives. I hear what George is
13 saying, and I have to agree with Gil that it is the
14 central issue here. But let's think about our
15 audience. The audience is the Department of the
16 Interior, Department of Commerce.

17 And I think we could be useful in generating
18 political will and acknowledging the political
19 realities in two ways. One is to have a section of the
20 document that sets out the importance of cultivating
21 other agencies and stakeholders, which is a lot of what
22 the Subcommittee 2's stuff is about. It doesn't hurt

1 to remind federal agencies that this is an important
2 part of implementation.

3 And the other way to think about political
4 will and political reality is not just what's in the
5 document but what we do later. The 9-11 Commission is
6 a good example of people writing a compelling and a
7 wonderfully written report which had all the stuff in
8 it, but then they took a very active role in advocating
9 those recommendations. The U.S. Commission on Ocean
10 Policy did the same thing.

11 So it's both. Let's think about what's in the
12 document, what the audience is, whether we need to
13 speak to political reality, I think we do in the
14 document, and also what follow-up activities we might
15 want to engage in.

16 DR. BROMLEY: Let me ask this. Yeah, that's
17 right, Rod. Could we find a few people to take a look
18 at the Ocean Action Plan that was suggested to us
19 yesterday, maybe Mary Glackin held up the Ocean Action
20 Plan. Several people did.

21 Would part of this task be to coordinate our
22 language with some of the language in the U.S. Ocean

1 Action Plan? Does this -- is this a place to start?

2 This is something that could be done quite easily.

3 Bob?

4 MR. BENDICK: Well, I think that all fits into
5 sort of the second checkmark here, which is the
6 introduction. The introduction to the report now just
7 sort of jump into bureaucratic terminology and past
8 reports without really setting up what's the problem
9 we're trying to solve, what's the need?

10 And I think if an introduction -- the
11 introduction is the foundation for the political
12 strategy by explaining why we're doing this and what
13 human and ecological needs are being served, not in
14 pages.

15 DR. BROMLEY: Okay.

16 MR. BENDICK: But if we can relate that to the
17 Ocean Action Plan to some of the kinds of things that
18 Tony McDonald told us yesterday to the things we've
19 heard as we've traveled around about the sort of crisis
20 in marine management in the country into maybe two
21 paragraphs instead of one.

22 DR. BROMLEY: Okay.

1 MR. BENDICK: I think that would help us to
2 sort of start the political process better than it is
3 now.

4 DR. BROMLEY: All right.

5 MR. BENDICK: And the political process is
6 also external, and sort of an external person couldn't
7 really relate very well to the beginnings of this
8 document the way it is now.

9 DR. BROMLEY: Good. So perhaps -- okay, Rod?

10 DR. FUJITA: Well, I totally agree that. And
11 I think that a lot of people have acknowledged that the
12 introduction needs to be beefed up. It has to be more
13 of a problem statement and made compelling.

14 But I think he raised an even larger issue,
15 Mr. Chairman, the question of how to treat the Ocean
16 Action Plan is a very important one for us. Is that
17 political reality, and do we provide recommendations on
18 how to implement the Ocean Action Plan? Or do we
19 critique it as an advisory body and tease out the good
20 parts and criticize the bad parts?

21 I think we need to make a decision about how
22 to treat that document.

1 DR. BROMLEY: Yeah. My reference to the
2 document was not that we ought to critique -- I don't
3 want to critique it, nor do I want to celebrate it.
4 Maybe what we could do is cross-reference it at times,
5 and that is the political reality of the day perhaps,
6 to show that we are connected to it and not unaware of
7 it, you know.

8 But -- Gil?

9 MR. RADONSKI: I think you're exactly right.
10 I don't want to -- I see it more as a road map of where
11 we should go, keeping in mind that this report that
12 we're speaking of, the Administration's response to the
13 OC.

14 They've already critiqued it, and they've
15 given us clear messages of what's important.

16 DR. BROMLEY: That's right.

17 MR. RADONSKI: And if we can, if our message
18 doesn't fit into it, we're going to have to really
19 scramble and justify why it should be included.

20 But I think using it as a road map and looking
21 for some ways of easing this into the system, if we can
22 just gild the lily a little, it might be to our benefit

1 if it doesn't compromise the integrity.

2 DR. BROMLEY: Yeah. That's my thought.

3 George, your hand up?

4 Okay. So let me see, and then we'll come back
5 to your other point, George. Let me see if we have
6 agreement that the thing here we could sort of dispense
7 with line 34, the political will thing, if we folded it
8 into the introduction somehow and did a better job of
9 motivating the report and the reasons for the report.
10 Is that right? Bob, that was basically your point,
11 right?

12 And I think it got general agreement. That we
13 need to work harder on the introduction and the
14 rationale, which in a sense gets back to the value of a
15 national system. But I would hope that our report is
16 seen as something broader than just advocacy for a
17 national system. It has to be -- it's got to have more
18 in it.

19 But, George, are we -- is everybody okay with
20 that? That that is how we'll sort of deal with that
21 matter? Okay.

22 George, could you come back to your second

1 point? And maybe if you'd move your microphone a bit
2 closer to your mouth, George.

3 MR. LAPOINTE: I'm going to try, Mr. Chairman.

4 DR. BROMLEY: Oh, that's much better. Thank
5 you.

6 MR. LAPOINTE: My second point, I mean, was
7 much more specific. And under big issue, the first
8 one, line 5, the regional emphasis. And it said look
9 at existing models with the fishery management
10 councils. I thought our document already reflected a
11 desire to use existing models and authorities, and I
12 thought that in terms of what we're discussing in terms
13 of regions, it is more a biogeographic region and not a
14 map region --

15 DR. BROMLEY: A map region.

16 MR. LAPOINTE: -- or a political region. And
17 I think, as you suggested, some language change to say
18 that it in fact is biologically based and not
19 geographically based or is politically based is a way
20 to address the confusion that may be there now.

21 DR. BROMLEY: As we heard yesterday, what
22 about -- there's a third layer, is there not, which is

1 human, the way humans -- I mean, maybe biologically
2 based would not be sufficient to cover the way in which
3 different societies within the U.S. use resources and
4 follow them and so on.

5 So where does this fit into this? Didn't we
6 hear that yesterday? That people follow resources, but
7 they may not just follow one. They may follow complex
8 or something.

9 So, I agree, George, we need that. But I
10 think it's a bit more complex than just saying
11 biologically based, because it might be culturally
12 driven. Go ahead.

13 MR. LAPOINTE: Your point is well taken, and I
14 think if people do wrestle with this language, I mean,
15 I don't know if biogeographic is the right term. But,
16 again, it's to get at the idea that it's not in fact
17 like the Northeast region of the National Marine
18 Fishery Service, or the area that comprises the New
19 England Fishery Management Council, but they're more
20 flexible boundaries.

21 DR. BROMLEY: Okay. Brian? Sorry. Hearing
22 is hard enough for me. Okay. I have Bob -- let's see,

1 I have Dave, Dave Benton, Bob Zales and now Mike.

2 Dave? Welcome, David. We missed you
3 yesterday. Just a little.

4 MR. BENTON: Oh, don't butter me up so early.
5 (Laughter.)

6 MR. BENTON: With all due respect to George, I
7 take his point well, but I think there's a very
8 important distinction between regions that are based
9 around either socioeconomic uses, as you point out, or
10 biological resources versus governance structures.

11 And a regional approach to setting up a
12 governance structure for developing and implementing
13 any kind of national system might be somewhat different
14 than let's say the Large Marine Ecosystem bioregions
15 that people are talking about right now.

16 And we need to make that distinction and we
17 need to keep that focus in mind. For example, in
18 Alaska there's three LMEs that are sort of being
19 designated right now and sort of talked about.

20 But I would venture to say that in Alaska that
21 up in our part of the world, people would like to see
22 only one governance structure instead of three, just

1 for simplicity's sake and ease of dealing with it. And
2 then you can underneath that umbrella, you could break
3 it out however you wanted to in subgroups.

4 But we need to just keep that idea in mind
5 that for governance structures, there may be slightly
6 different lines on a map, if you would, or a different
7 way of looking at then exactly where the biological
8 resources are. And at some point, then you have to
9 figure out where those intersections are and how you
10 deal with it if biological resources cross over some
11 arbitrary line.

12 DR. BROMLEY: Very nice. I'd like to point
13 out that those of you that are volunteering to speak
14 are getting on a list of folks that we will ask to go
15 into another room soon and then come back with some
16 language. So I'm happy to see all these volunteers.

17 (Laughter.)

18 DR. BROMLEY: George, is your hand up still or
19 did you just withdraw it? But I have others on the
20 list. So can I just put you back in the queue?

21 MR. LAPOINTE: I'll be patient.

22 DR. BROMLEY: Pardon me?

1 MR. LAPOINTE: I will be patient, Mr.

2 Chairman.

3 DR. BROMLEY: Patient. Good. Now we have Bob
4 Zales.

5 MR. ZALES: This issue of regional emphasis
6 kind of gets back into when we first met, I think one
7 of the first questions I asked was when it came to
8 creating MPAs and regulating MPAs and doing everything
9 we're going to do with them, who was going to be boss?

10 And it appears to me because -- and we still
11 haven't heard from the Gulf Council and I guess the New
12 England Council, but I know from my experience of
13 dealing with the Gulf Council that they intend to be
14 boss in the Gulf of Mexico.

15 And I think that we've heard from every
16 regional fishery management council so far that they
17 believe in the big boss in their areas of control. But
18 that's what they feel. They feel like that they are in
19 charge of the waters that they are designated to
20 control in a sense from state jurisdictions 200 miles.

21 So, and we're getting into this new thing with
22 eco-based system management I guess, which is

1 essentially going to cross some boundaries I would
2 suspect, because I know there are some species,
3 especially in the Gulf and South Atlantic, that between
4 the South Atlantic and the Gulf of Mexico are going to
5 cross that boundary when it comes to eco-based system
6 management.

7 There's going have to be a mechanism developed
8 to kind of work that out I guess and on further up the
9 coast I suspect in all these councils that these things
10 are going to cross over.

11 So the regional emphasis I think, and this
12 gets into the governance -- I think the public is
13 pretty well accustomed now to being regulated in their
14 particular area of jurisdiction, which currently in
15 federal waters is based kind of on the council area of
16 jurisdiction.

17 So when you get in the regions, even though
18 you're going to have the biological part of this, the
19 current management process that I think everybody's
20 used to, and granted, an MPA isn't strictly going to
21 have to do with fishing, but I think that's the big
22 interest in it currently is how it's going to affect

1 fishing, what it's going to do for fishing.

2 So I think that we need to consider the
3 regional part of being kind of along the eight regional
4 council area of jurisdiction.

5 DR. BROMLEY: My guess is if we said that
6 regional fisheries management councils are going to be
7 the governance structure for MPAs, we'd have a
8 political storm on our hands. So, I take your point,
9 Bob, but I wouldn't hold my breath. Or if you do,
10 expect a fight. But anyway, that's just my editorial
11 intervention here.

12 Mike? Mike, there you are.

13 DR. CRUICKSHANK: Thank you. I was going to
14 talk about the large marine ecosystems and areas. I
15 think Dave pretty well covered it all.

16 DR. BROMLEY: Okay.

17 DR. CRUICKSHANK: Thank you.

18 DR. BROMLEY: Yeah. Dave, did you hear that?
19 You did a nice job.

20 (Laughter.)

21 DR. BROMLEY: Rod?

22 MR. BENTON: I'm going to be quiet, Mr.

1 Chairman.

2 DR. BROMLEY: Rod.

3 DR. FUJITA: Yeah. I think Dave is framing
4 the issue correctly in terms of we've got to think
5 about the regional dimension of governance and the
6 regional dimensions of where the organisms are. So
7 there's a sort of biogeographic component, and there's
8 also the jurisdictional component. And the problem of
9 ecosystem management is to bring them together and
10 reduce the conflict between the two, right?

11 So there might be several different agencies
12 operating at the regional level with overlapping
13 jurisdictions on one biogeographic zone. That's the
14 kind of thing we need to identify and resolve.

15 There's another dimension, though, which is I
16 think at the heart of the lot of the stewardship and
17 effectiveness subcommittees work, which is the reason
18 that we're promoting regions or the way we've
19 constructed this we envision solutions coming from the
20 regional level respecting regional differences in
21 process and political reality and biology, but with
22 some kind of top-down coordination. So it's never all

1 bottom up, it's never all top down. It's sort of the
2 mixing of the two that generates the best possible
3 national system of MPAs.

4 And one further point is that in the
5 California Marine Life Protection Act process, the term
6 "biogeographic" has caused some problems in
7 interpretation. I think I understand where you're
8 coming from George, but what we've been talking about
9 is more biophysically defined boundaries, because
10 there's not always species breaks, you know, a very
11 different fauna.

12 But the way to think about connectivity
13 biologically, and if we think that's a value of having
14 an MPA network is connectivity between the sites, then
15 it's really about what is containing the dispersion,
16 right, and what are the physical dynamics that control
17 the distribution of organisms. It's not so much about
18 where the species breaks are.

19 So we're talking about currents and eddies and
20 transition domains and oceanographically in that case.

21 So, there's probably another term that we can use that
22 would better capture that.

1 DR. BROMLEY: Good. Okay. George? And then
2 I have Max. Anybody else want to get in the line here?

3 MR. LAPOINTE: Rod's point is well taken, and
4 I just threw that term out to get things started. And
5 if there's a better one, I'm happy to hear it.

6 The tension between how much top-down
7 governance we suggest and how much bottoms-up
8 governance we allow is an important one for us to
9 consider. Because when David was talking, it sounded
10 like we were going to say thou shalt have, you know, a
11 certain regional structure, and that's certainly not
12 where I'm coming from on this.

13 And although in talking about the regional
14 fishery management councils, and again, I've been a
15 member of three of them, yes, there's a lot of interest
16 on the part of fisheries, and yes, that's the structure
17 we are used to dealing with. But I think we're talking
18 about a broader audience and bigger issues here and we
19 need to pay attention to that as well.

20 DR. BROMLEY: Yeah.

21 MR. LAPOINTE: It's much like when I worked
22 for fish and wildlife agencies when people said, well,

1 jeez, we talk to the hunters. What else is there out
2 there? Well, about 93 percent of the population. And
3 we just need to pay attention to the national needs of
4 a national system as well I think. We shouldn't lose
5 sight of that.

6 DR. BROMLEY: Okay. I have Max and then John
7 Ogden.

8 MR. PETERSON: It seems to me when we talk
9 about regions, we're probably talking about a small
10 "r". And I think regions, a biological region, or one
11 that's considered a biological region, may have merit
12 for detailed planning. But let me point out that
13 biological boundaries are not fixed either.

14 We talked yesterday about Delaware Bay, the
15 Horseshoe crab, that's a very important food supply for
16 birds that fly from Newfoundland to Central America.
17 So any boundary you draw is artificial and does not
18 contain the whole ecosystem, for example.

19 So let me suggest there are planning
20 boundaries, but then there's administrative boundaries
21 or governing boundaries, and that involves people. So
22 I think the people side of this is going to make the

1 difference in whether this works or not. So I'm not an
2 advocate of using just a fishers management council.

3 But I think if we ignore them or ignore those
4 boundaries that have been set up, that would be a very
5 bad thing because in the first place, this executive
6 order provides no new authority. So there isn't any
7 authority to set up new regions out there or do other
8 things that we think about.

9 So that leads me to one final point, and that
10 is, under implementation, which is your last point
11 here, I think far more than defining the goals is
12 defining how this would be implemented. I think it
13 takes legislation. I don't think it can be implemented
14 under the executive order, except maybe Indian tribes
15 can set up MPAs or states can set up MPAs on their own
16 authority. But I don't know of any federal authority
17 that allows the establishment of MPAs by administrative
18 action unless there's another executive order.

19 So I think we need a whole look at --

20 DR. BROMLEY: That implementation

21 MR. PETERSON: Implementation. And that's
22 going to have a lot to do with political will. If the

1 members of a state and the governors and members of
2 congress and so on see this as a good idea and pass an
3 act, you'll probably get some political will and you'll
4 get some appropriation.

5 Otherwise, we'll establish these things and a
6 lot of people will visit them, and they won't be
7 prepared to accept the visitation. And we could
8 actually end up with a reduction in the quality of
9 these areas, which would be a disaster. Okay? Thanks.

10 DR. BROMLEY: Let me propose that we draw this
11 to a close. I have John on the list, John Halsey also.

12 I'll put you on the list. And then let's see if we
13 can't wrap this up, dispense with it and move on. Is
14 that acceptable to people? John Ogden and John Halsey,
15 and then we'll stop it.

16 DR. HALSEY: This is a really good discussion.

17 I think it's important to realize that we're dealing
18 with the long view here, that we're not going to
19 propose regions in which MPAs will be implemented. We
20 are going to point out that there's a certain rationale
21 to regionality that is both scientific, as we've had a
22 good discussion on, and social.

1 But that the -- I think we have to allow an
2 evolution to occur between, for example, in Florida,
3 which initially when confronted with the word
4 "regional" sort of said uh-uh, you know, we're not --
5 you know, this is Florida. I mean, we're going to do
6 what Florida wants to do. It's the fourth largest
7 state in the nation.

8 And then very tentatively has contacted the
9 Gulf States governors, and there will be a meeting and
10 there's going to be an evolving process which almost
11 surely will lead to a bottom-up, if you will,
12 declaration of the Gulf of Mexico as one of those
13 cooperative regions under even if we weren't a
14 committee.

15 So I think not to be too prescriptive in these
16 recommendations, to realize that we're proposing a
17 process that will take 20 years.

18 DR. BROMLEY: Thank you. Okay. John Halsey.

19 DR. HALSEY: I have two observations. One is
20 that states are perfectly capable of creating MPAs on
21 their own. Certainly we have in Michigan.

22 So that is something that shouldn't be

1 overlooked in all of this is that the states can and in
2 some cases probably will continue to create these
3 through their own legislation, and it makes them just
4 as viable as anything else.

5 The second observation is that perhaps we
6 should be look at what existing regional frameworks
7 already are out there beyond the fisheries. Certainly
8 the marine sanctuary program has its own set of
9 regional things. The Park Service has had regions for
10 years, and seeing if there's any kind of sort of common
11 set of overlapping -- Joe is saying no. Okay.

12 I think it's still something, you know, we do have
13 already, you know, in some cases, regions that have
14 been out there for going on close to a century at this
15 point. So maybe it makes some sense to reconsider what
16 those are and what their rationale for creation was in
17 the first place.

18 DR. BROMLEY: Brian, I do want to recognize
19 you, because EPA, so. Is that your point, Brian,
20 briefly?

21 DR. MELZIAN: Just points of information.
22 This week the eleven regional associations that will be

1 implementing integrated ocean observance system that
2 will include biological data. They're meeting in
3 Washington, D.C. to codify the National Federation of
4 Regional Associations, and their boundaries are based
5 on biogeographical boundaries. And for example, on the
6 East Coast, there's one for New England, the Mid-
7 Atlantic, Southeast, Gulf of Mexico, and there are two
8 for California.

9 So are these nascent regional associations
10 that are being formed that you may want to consider for
11 inclusion.

12 DR. BROMLEY: Wonderful. Okay. Let me ask
13 this. Do you think we could find three or four or five
14 people who would like to spend some time hammering out
15 this issue, looking at our report, identifying where
16 we've been sloppy and incomplete in our discussion of
17 regions, fixing the report so that it is not wrong or
18 an embarrassment to us, and mapping out future actions
19 that might be taken over the next two years to address
20 this issue of regionality? Because I think it's very
21 important.

22 And let me give you an example of future

1 actions. We could have people come in who are involved
2 in regional governance arrangements with respect to the
3 ocean talk to us. We could learn from them. So a
4 future action, but yet we've got to get this document
5 tightened down a little bit. Is there anyone who would
6 like to join a little committee to help us with that?

7 DR. CRUICKSHANK: Sure.

8 DR. BROMLEY: Wonderful. Who else? George.

9 MR. LAPOINTE: I'd better volunteer --

10 DR. BROMLEY: Okay.

11 MR. LAPOINTE: -- after all my lippiness.

12 DR. BROMLEY: I can't hear you.

13 MR. LAPOINTE: I said I better volunteer after
14 all my lippiness this morning.

15 DR. BROMLEY: You noticed. Tony. Rod and
16 Bob. Bob, is that your hand up? Yeah. Wonderful.
17 Okay. And Gil?

18 MR. RADONSKI: I've got to keep George in
19 line.

20 DR. BROMLEY: Somebody's got to.

21 (Laughter.)

22 DR. BROMLEY: Well, okay. Who do we have?

1 Lauren missed the first person.

2 MS. WENZEL: We've got Mike, George, Tony,
3 Rod, Bob Zales and Gil, correct?

4 DR. BROMLEY: Okay. By one o'clock -- no, I'm
5 just kidding. So we have a group organized. We'll
6 figure out the schedule later, all right. So we've got
7 this little rump group taskforce is going to focus on
8 regional issues.

9 Now what do you want to talk about? On our
10 list of -- we've dispensed with sort of political will,
11 reality. We've dispensed with region emphasis.

12 Next? Of these big issues. What would you
13 like to tackle? You want to go home? Max?

14 MR. PETERSON: I think this is an excellent
15 document --

16 DR. BROMLEY: Wait a minute. Okay. Go ahead,
17 Max.

18 MR. PETERSON: I think this is an excellent
19 synthesis you put together, but what doesn't stand out
20 to me are recommendations. We need to think about -- I
21 mentioned to you yesterday -- I think we probably need
22 an executive summary which includes some very specific

1 recommendations.

2 DR. BROMLEY: Yeah.

3 MR. PETERSON: Because otherwise, I think
4 that's one of the reasons the document, you read this
5 document, it's kind of like reading a phone book, you
6 know. It's got a lot of stuff in it but nothing stands
7 out.

8 DR. BROMLEY: Yeah.

9 MR. PETERSON: So two things, an executive
10 summary and some very clear recommendations --

11 DR. BROMLEY: That's right.

12 MR. PETERSON: -- I think is a big question
13 mark.

14 DR. BROMLEY: Yeah.

15 MR. PETERSON: -- which will be part of
16 implementation, right?

17 DR. BROMLEY: Yeah.

18 MR. PETERSON: Okay.

19 DR. BROMLEY: Yeah. We do need that. And
20 that's right. We'll kind of come back to that. Do you
21 want to tackle line 29? Should we dig in on that for a
22 minute? The issue being do we have the words right?

1 MR. RADONSKI: Are we going to have Charlie
2 give us some information?

3 DR. BROMLEY: Yeah, we are. We are. I mean,
4 if that's what people want to talk about, I'll ask
5 Charlie to -- should we do this?

6 DR. WAHLE: Yeah.

7 DR. BROMLEY: All right. Let's do. You know,
8 I said yesterday, gosh, are we sure we have -- I mean,
9 is there such a thing as a cultural heritage MPA, or
10 are they just a lot of things combined? So, Charlie,
11 evidently with, you know, their work, they've given
12 some thought to this. And Charlie has a sheet of
13 paper. Did you pass this to everyone, Charlie?

14 DR. WAHLE: Yes.

15 DR. BROMLEY: Or am I the only one who has it?

16 DR. WAHLE: No, it's being passed around right
17 now.

18 DR. BROMLEY: Okay.

19 DR. WAHLE: This shouldn't take long. We had
20 received input from our federal agency partners and
21 from the states very much along the lines of what we
22 heard from you all yesterday, which is essentially it

1 boils down to one of the six primary criteria for the
2 classification system was what we were calling the
3 primary conservation focus of the site.

4 We for a variety of reasons had distilled that
5 down into three: natural heritage, cultural heritage
6 and sustainable production, recognizing that many sites
7 have multiple purposes but asserting apparently
8 unreasonably that some sites had one dominant one that
9 you could really work with.

10 We got enough feedback on this that we went
11 back and rethought it and essentially blew it back out
12 into all possible combinations.

13 So what you see in this document is the top
14 section previous version is what you all have seen for
15 some time now, where essentially natural heritage site
16 would be, for example, a marine sanctuary which has a
17 primary purpose of ecosystem conservation but may also
18 support sustainable use and may also have cultural
19 resources.

20 The proposed revision, which is what I heard
21 you all say yesterday, is to split the system into what
22 ultimately are seven categories. The first three,

1 natural, cultural and sustainable, are exclusive
2 purpose sites. An MPA, for example, that was about
3 shipwreck and nothing else, would be a cultural
4 heritage MPA.

5 The second group is the dual focus ones, of
6 which there are actually many. The first being a
7 combination of natural and cultural heritage, as are
8 many sanctuaries and national parks; the second,
9 natural heritage and sustainable production, which I
10 believe may apply to a lot of fish and wildlife
11 refuges, possibly some state MPAs.

12 And the third is a category that I'm not sure
13 exists or that there are many of, but it's certainly a
14 possibility, which is a site that is designed to
15 preserve both cultural heritage and artifacts and
16 promote sustainable production. And I think ultimately
17 we may find that some tribal sites fit that
18 description.

19 And then finally, there's the catchall it does
20 everything, and there are a few of those. And I think
21 in ultimately the end of this process, we may end up
22 with quite a few more that fit that description where a

1 site has been comprehensively planned to meet these
2 three goals.

3 So this is the proposal. It works. We've
4 applied to the inventory, and it's actually fairly
5 simple to do.

6 One point I'd like to make in following up on
7 some of the related conversation yesterday is that
8 changing the way in which we describe an MPA's purpose
9 is sort of a functional thing.

10 But the three themes that we've laid out --
11 natural heritage, cultural heritage and sustainable
12 production -- are still useful and valuable in kind of
13 the planning context when you think about how we'd go
14 about identifying gaps in needs of bringing the science
15 to the question of what needs to be done in the future.

16 So we're suggesting that these three themes
17 are still valid as a planning tool and construct, but
18 they're not a way to describe an individual site.

19 DR. BROMLEY: Wonderful. Thank you, Charlie.

20 Okay. Do we have some discussion about this? We go
21 from three to seven. John?

22 DR. OGDEN: Well, my wife is a psychologist,

1 and that field is -- studying algae, marine algae --
2 and that field is characterized by people who make
3 their careers on dividing a formerly perfectly good
4 species from an ecologist standpoint into five
5 different species.

6 DR. BROMLEY: We're now into lumpers and
7 splitters, are we?

8 DR. OGDEN: And then all of them scratching
9 their heads --

10 DR. BROMLEY: Shame on you, John.

11 (Laughter.)

12 DR. BROMLEY: Should have known better than to
13 marry somebody like that.

14 DR. OGDEN: And I'm a lumper.

15 (Laughter.)

16 DR. OGDEN: I'm not a splitter. And I guess
17 I'm hoping that we can do kind of what Charlie said
18 right at the very end there is that somehow handle this
19 by our glossary or by definitions rather than try to
20 carry this through the document and bring up these
21 nuances as they occur.

22 I think -- but enough said. I just -- I worry

1 about this.

2 DR. BROMLEY: Okay. I have George, Jim and
3 Gil and Bonnie and Rod. Okay.

4 MR. LAPOINTE: I'm with John. I'm a lumper.
5 But I understand what Charlie is saying. If I go to
6 our document, the full document, and go to page 2 and
7 line 55, I think we could take into account the
8 comments by using language something like enhance
9 multiple conservation objectives by implementing MPAs
10 that combine, as appropriate, three broad categories of
11 interest.

12 So it talks about not lining up A and B and B
13 and C and A and C, but that in fact you can combine
14 them as needed, and just to state that explicitly I
15 think accomplishes the same thing.

16 MR. RADONSKI: Could you restate what you
17 would add, George?

18 MR. LAPOINTE: It would be something to the
19 effect, and I would volunteer to work on this as well.

20 DR. BROMLEY: Yeah. Work on some language.
21 But read it for us, yeah.

22 MR. LAPOINTE: It's on line 55. Enhance

1 multiple conservation objectives by implementing MPAs
2 that combine, comma, as appropriate, comma, three broad
3 categories of MPA.

4 And clearly, I mean, I haven't worked through
5 all the language, but it just talks about the need to
6 combine as appropriate.

7 DR. BROMLEY: Yeah. Okay. Wonderful. We
8 have Jim Ray.

9 DR. RAY: All right. George said what I
10 wanted to say.

11 DR. BROMLEY: All right. Gil?

12 MR. RADONSKI: George did cover it. I liked
13 the idea that Charlie had that these are themes, you
14 know, and George -- I think George's language just
15 brings it out very nice.

16 DR. BROMLEY: Okay. I have Bonnie, Rod, Bob
17 Zales and Steve Murray.

18 DR. McCAY: I pass. I like the rewriting.

19 DR. BROMLEY: My goodness. We're on a roll
20 here. Rod?

21 DR. FUJITA: Kumbaiyah here.

22 (Laughter.)

1 DR. FUJITA: Except one comment. And that is,
2 these are more than themes are issues. These I think
3 are values. And it might be useful for us to say there
4 are three values that we're trying to protect here.

5 An individual site can have a single purpose
6 to protect one value, or it can have several purposes
7 to protect several values, and networks certainly often
8 have multiple values and multiple objectives.

9 I think it's very important for us to be
10 extremely clear about that point, that not all MPAs
11 have to have multiple objectives. Some of them can be
12 just about preserving the baseline or natural heritage.
13 Some could just be about sustainable development, but
14 that networks and other kinds of MPAs can have multiple
15 objectives.

16 DR. BROMLEY: Okay. I have Bob Zales, I have
17 Steve, I have Dave, and then I have Tony.

18 MR. ZALES: I agree with everything that's
19 been said so far, and I believe that if you look on the
20 last couple of pages of this document and you read how
21 we've defined all these MPAs, they all say that. Each
22 one has that. And I still fail to see where it says

1 any one MPA has to be specific this category, that it
2 can't be one, all, or something different.

3 DR. BROMLEY: Okay. Good. Steve?

4 DR. MURRAY: Well, I think we're all saying
5 pretty much the same thing, and I'm going to say
6 something very similar. It seems me that we're mixing
7 up a label with goals.

8 So, you know, I'm wondering whether if we go
9 ahead in the future ten years from now whether we would
10 be even thinking of saying, well, this MPA is a natural
11 heritage MPA, and this one is sustainable production
12 MPA. I don't know that those labels are necessary at
13 all.

14 DR. BROMLEY: Okay.

15 DR. MURRAY: So in that context, I mean, I
16 could see how we could go back to line 55 and simply
17 modify this to say enhance multiple conservation
18 objections by implementing MPAs with one or more of the
19 following goals. And then those goals would fall out.

20 They're addressing what we've defined as natural
21 heritage or as cultural heritage or as sustainable
22 production.

1 So my main point is goals versus labels, and
2 whether we really want labels on individual MPAs to
3 categorize them, whether we even need to go to there.

4 DR. BROMLEY: Okay. Good. Wonderful. Dave
5 Benton, Tony, and then Eric. Dave?

6 MR. BENTON: Thank you, Mr. Chairman.
7 Actually, I had a little bit different take on this and
8 a question for Joe or Charlie, and that is, these are
9 going to be put into regulation I would suspect. I
10 mean, you have your categorization --

11 DR. BROMLEY: Speak into the microphone,
12 please, Dave.

13 MR. BENTON: Sorry. You have your categories
14 are in regulation -- I mean, a classification system
15 goes into some Federal Register notice, that kind of
16 thing.

17 Was there a particular reason from sort of a
18 regulatory standpoint or a Federal Register notice
19 standpoint that you wanted -- that you're looking at
20 changing these? I'm trying to understand why.

21 DR. WAHLE: Well, Joe, you can jump in if I
22 get out on the limb too far. We had not actually

1 envisioned the classification system being codified in
2 regulation necessarily. It's really just a tool to
3 describe either existing MPAs or ones that you might be
4 planning. So, that may or may not happen, but it's not
5 our intention at the moment.

6 The reason why we're making this adaptation is
7 that we heard very loudly and rather painfully over the
8 past few weeks that this one-size-fits-all thing really
9 doesn't work. We always knew it was sort of a
10 shoehorn, but it posed some real problems for sites for
11 which there are multiple mandates, especially the
12 cultural heritage ones.

13 MR. URAVITCH: Yeah. Let me add, this was
14 pushed back. We received both from the federal and the
15 state site managers themselves saying that their sites
16 and the work they're doing was being unfairly pigeon-
17 holed and that -- for example, Florida Keys, which a
18 number of you were at, not only dealt with natural
19 heritage conservation, but they also had important
20 cultural resources, and they also were involved in
21 sustainable production of fisheries.

22 And they felt that they couldn't be just

1 classified under one. Hence, the splitting out to
2 seven to try and catch what the managers were telling
3 us about themselves and their responsibilities.

4 MR. BENTON: Mr. Chairman, can I follow up?

5 DR. BROMLEY: Sure.

6 MR. BENTON: Okay. I understand that part.

7 But I also understand the executive order says you are
8 supposed to put together some kind of a classification
9 system. So I'm still trying to figure out if there's -
10 - I mean, how this fits under the executive order.

11 And maybe this is -- I'm not looking for any,
12 you know, any culprits here. I'm just trying to
13 understand, is this something you really need to do
14 because of that, or is it just a planning tool?

15 MR. URAVITCH: It's a planning tool. We did
16 this to understand, to help us better understand this
17 array of different types of sites we have across the
18 country. It's really not from a regulatory perspective
19 at all.

20 MR. BENTON: And so for a particular site,
21 when it comes down would you then go from the next step
22 of MMA to MPA, right? Then this doesn't necessarily

1 throw a site out or include new sites. It just figures
2 out the same sites would probably fall within those
3 categories as you've laid them out one way or another.

4 DR. WHALE: Yes.

5 MR. BENTON: It would just be a different way
6 of lumping them?

7 DR. WAHLE: Right. It's just a way to
8 describe an MMA or an MPA for whatever purpose.

9 MR. BENTON: Okay.

10 DR. WAHLE: And it actually was not called for
11 an executive order.

12 DR. BROMLEY: Good. Maybe we can wrap this up
13 in a minute. We have Tony Chatwin and Eric and Gil.
14 No, Eric.

15 DR. CHATWIN: Thank you, Mr. Chairman. I
16 would just like to express support for the revised
17 classification framework, because rather than going in
18 the direction that some of the comments where sort of
19 making it more general and talking about broad goals,
20 multiple goals, that direction makes me nervous, not
21 because of the fact -- I understand the fact that we
22 have to recognize that existing MPAs have multiple

1 mandates.

2 My concern is that if we leave broad language
3 here about MPAs having multiple mandates, not
4 recognizing that there could be ones that have an
5 exclusive mandate, in the future, it could be
6 interpreted as -- and this isn't -- it would be
7 inadvertently interpreted as every MPA has to have a
8 multiple mandate.

9 And I think that one of the challenges to
10 being effective as an MPA is having to balance multiple
11 goals. And so I wouldn't want to be -- I wouldn't want
12 us to go down the road of inadvertently advising that
13 every MPA should have multiple goals.

14 And so I like the classification -- the
15 revised classification that clearly spells out you
16 could have single-purpose MPAs and you can have
17 multiple-purpose MPAs.

18 DR. BROMLEY: Okay. I have Eric Gilman and
19 then Dave Benton. And then I'd like to see if we can
20 stop. Eric Gilman.

21 MR. GILMAN: I'd like to offer that this
22 document doesn't need to include classifications even

1 for MPAs.

2 DR. BROMLEY: It does not need to, you say?

3 MR. GILMAN: Yes. And that the basis for that
4 comment is if we look at the existing process that's
5 laid out in the document, the process for selecting and
6 managing individual MPAs that would be added to the
7 system includes in the process section in the
8 nomination process you simply identify the site and
9 what value that it's going to serve.

10 DR. BROMLEY: What purpose it would serve,
11 yeah.

12 MR. GILMAN: And I think we don't need to get
13 bogged down in semantics of defining what to call those
14 specific MPAs. The nomination and management process
15 would --

16 DR. BROMLEY: Okay. David?

17 MR. BENTON: Eric sort of hit on the question
18 that I had in the back of my mind, and I'd like to
19 follow up on his comments, I don't know why you need
20 seven categories if you can just put under your three
21 single uses one more bullet that says multi-purpose
22 MPAs, then allow people to do whatever. Why didn't you

1 -- would that be a different way of doing the same
2 thing?

3 DR. BROMLEY: Okay. Could we try to summarize
4 what we've heard? What if -- could I find three or
5 four people who would be willing to work on this
6 language? And in a sense, part of it is just sort of
7 how we talk about it.

8 And it seems to me the issue is we start out
9 saying they're going to be three kinds, and now we're
10 worried about there ought to be seven. And some people
11 think, you know, we've covered this someplace else.

12 Could we find a drafting group to come back
13 to us with language about these points in the report
14 that will resolve this? I don't think this is a big
15 deal. I think it's just -- it's a level of expression
16 that can be fixed quite easily I think.

17 Max, you're volunteering?

18 MR. PETERSON: I'll be glad to work on it.

19 DR. BROMLEY: Wonderful. Somebody else? Jim
20 Ray. George, was your hand up? And Terry and Steven.
21 Okay. None of you volunteered for the other group,
22 did you?

1 PARTICIPANT: George.

2 MR. LAPOINTE: I did.

3 DR. BROMLEY: George. You're going to be
4 straddling two groups, George. We'll try to work out
5 the scheduling problem. Okay. And Tony. Oh, I
6 thought you were volunteering.

7 DR. CHATWIN: No. I have a question.

8 DR. BROMLEY: Then you can't speak.

9 (Laughter.)

10 DR. BROMLEY: Yes, go ahead.

11 DR. CHATWIN: I just have a question, Mr.
12 Chairman. And you may have covered this in your
13 discussions last night after the public hearing period
14 and I wasn't here. But creating these ad hoc
15 committees --

16 DR. BROMLEY: Yes.

17 DR. CHATWIN: With precisely this issue, if
18 you're on one, you're not on another, and we don't know
19 what the universe of these ad hoc committees are going
20 to be, I think if they're an issue, it's not a big
21 deal, let's just resolve it now as a group and move on
22 to the next?

1 DR. BROMLEY: Well, I don't like to write in
2 groups. So maybe this little rump group can go away
3 and spend ten minutes and come back and it'll all be
4 fixed.

5 DR. CHATWIN: Okay, Mr. Chairman.

6 DR. BROMLEY: Let's see. Okay. Gee, what
7 have we dealt with? Classification system. Yes, Eric?

8 MR. GILMAN: I just wanted to suggest another
9 broad category that wasn't on your original list.

10 DR. BROMLEY: Yeah, go ahead.

11 MR. GILMAN: And that would be performance
12 assessment.

13 DR. BROMLEY: Can you pull your microphone
14 closer to the mouth or the other way around, please?

15 MR. GILMAN: Sorry. In Section 3, which seems
16 to be the meat you the document which deals with
17 procedures, there is a component that deals with
18 performance assessment of sites that are added to the
19 system, and I would suggest that could be another broad
20 category that we could address.

21 DR. BROMLEY: Okay. Performance effects. Is
22 that right?

1 MR. GILMAN: Performance evaluation.

2 DR. BROMLEY: Assessment?

3 MR. GILMAN: Assessment.

4 DR. BROMLEY: So you're saying that
5 Subcommittee 2 didn't do its job?

6 MR. GILMAN: I'm just saying it's not in the
7 synthesis document in perhaps in the correct place.

8 DR. BROMLEY: Okay. Okay. We haven't dealt
9 with line 8. There is a sense that we haven't close
10 the sale, we haven't closed the deal, right? Why the
11 national system? What's the point? Is that right?
12 Isn't that sort of what line 8 is all about? The value
13 of this?

14 Now maybe this can be covered in the
15 introduction. Maybe it can be covered someplace, but
16 we haven't addressed that yet this morning. Tell me
17 again what is so profoundly compelling about a national
18 system, right? I want to hear again what you're going
19 to get out of it, why are we doing this? Okay.

20 We've sort of taken it for granted. And is
21 that a big issue? Gil?

22 MR. RADONSKI: Well, first of all, the

1 executive order directs us to do it.

2 DR. BROMLEY: Yeah. Yeah. But it doesn't
3 tell us what it ought to look like.

4 MR. RADONSKI: I know. But we build -- I'm
5 not saying that's solely --

6 DR. BROMLEY: That's right. We kind of took
7 it for granted, didn't we?

8 MR. RADONSKI: Yeah. But we need to build on
9 it.

10 DR. BROMLEY: Yeah. I mean, we could say it's
11 a bad idea. My heavens, right? We could say that. We
12 could say that Bill Clinton was screwed up.

13 (Laughter.)

14 MR. RADONSKI: That's a whole other
15 discussion.

16 DR. BROMLEY: Others have already said that.
17 We wouldn't get --

18 (Laughter.)

19 DR. BROMLEY: So, all right. I mean, we could
20 say it was a bad idea. The Bush Administration sort of
21 thought, well, okay, maybe it's not a bad idea, so here
22 we still exist, right? I mean, they didn't kill us

1 off.

2 So the point is, okay, so what? Who says it's
3 a great idea? And in a sense to be critical of our own
4 document, we haven't closed the sale yet, I don't
5 think.

6 Mike?

7 DR. CRUICKSHANK: I'm wondering if as MPAs are
8 now global entities --

9 DR. BROMLEY: Are what?

10 DR. CRUICKSHANK: They're now global entities.

11 DR. BROMLEY: Global entities?

12 DR. CRUICKSHANK: Yeah. You find that every
13 country has seized on this MPA issue and produced --
14 not every country, but many countries have.

15 So we're in competition with the rest of the
16 world. And this may be a reason then for pulling them
17 out of the category, but it's a very good category I
18 think, and specializing in particular MPAs. What's the
19 difference between the MMA and the MPA? Maybe that
20 should be more emphasized.

21 But there's no question there's MPAs in
22 Europe, and what are they, I mean, where do we fit in

1 with this?

2 DR. BROMLEY: Okay. Yes, Dan? Dan Suman, go
3 ahead.

4 DR. SUMAN: By taking a holistic perspective
5 in the sense of a national system, we might have a
6 better sense of habitats and sites, representative
7 habitats that need protection, that currently are
8 underrepresented, combining the many different types of
9 protected areas that we have.

10 DR. BROMLEY: Good. That's nice. What we're
11 doing is we are giving ourselves reasons why a national
12 system is a good thing. But I want to see it in
13 writing. I want to know how that gets mapped into our
14 language.

15 Many of us may not need convincing. Some of
16 us may need convincing. The point here is not to give
17 reasons in the room about why it's a great idea or not.
18 I think the point is for the document is can we tell a
19 story that will make the case or not? That's our
20 charge.

21 So, again, maybe what I'm looking for is
22 people who are going to be willing to sit down and look

1 at the introduction, look at the document, and make it
2 more compelling if you can, make the case for why there
3 ought to be a national system or something like that.

4 That's what I think is missing. Am I alone in
5 that?

6 VARIOUS PARTICIPANTS: I agree with you.

7 DR. BROMLEY: So we just don't have the words
8 there yet. And maybe some people in the room don't
9 want the words to be there. They ought to be at the
10 table hashing out how we're going to talk about it.

11 Dolly?

12 DR. GARZA: Thank you, Mr. Chair. And those
13 were the concerns I addressed yesterday afternoon and
14 what kind of struck me from the two regional advisory
15 council presentations in the morning is, you know, is
16 that MPA is a tool, but under -- you know, when would
17 you use it and why would you pick that particular tool
18 amongst the other tools that you have available if you
19 can go to the regional advisory council, get protection
20 for a particular habitat or for a spawning area, then
21 why would you use MPA?

22 And so we have to look at what are the missing

1 gaps? What types of protections have to be offered
2 that aren't offered that aren't offered in these other
3 tools? Perhaps what it does is allow for participation
4 by different groups that aren't necessarily allowed for
5 in an adequate manner through the other existing tools,
6 such as board of fisheries or the councils or whatever
7 other means.

8 But the other thing I didn't see in here is
9 why you would want to join national system, what are
10 the benefits of that. I mean, if Alaska can create the
11 pinnacle MPA and they're done and they don't have to do
12 anything else with the rest of the U.S., maybe that's
13 just fine.

14 DR. BROMLEY: That's right, Dolly. Thank you.
15 Part of it is that we're still unclear in our own mind
16 about what a national system is, okay. We haven't
17 worked very hard on that, have we? We don't know what
18 it means.

19 Does a national system mean that every MPA has
20 to march to the same orders? I mean, that's still
21 vague in here. And if it's vague to us, you can
22 imagine how vague it's going to be to somebody who

1 reads this document. So this has got to be pinned down
2 a bit.

3 Rod and then Bob.

4 DR. FUJITA: Thank you, Mr. Chairman. There
5 is a need to -- well, Dolly has introduced two things.
6 One is the need to articulate the benefits of MPAs
7 with respect to all the other tools that are available
8 for management, and the other is to demonstrate the
9 value of a national system or array of MPAs.

10 I think we could do both fairly easily. We're
11 not starting from scratch here, because the MPA Center
12 has put together a bunch of slides and documents that
13 articulate what they think the benefits of the national
14 system may be and we can add to those or subtract from
15 them as we wish.

16 DR. BROMLEY: Okay. Bob Zales?

17 MR. ZALES: I don't know, maybe I'm just too
18 simplistic, but I believe when you read page 2 of our
19 document under goals, to me that pretty well spells out
20 the whole thing of why you need a national system and
21 what it's for.

22 I mean, you know, we've got statements in here

1 such as whether these steps would respect and involve
2 states, tribes and other regional local groups and
3 various federal agencies in the creation and management
4 of threatened marine habitat. I mean, that's one of
5 the reasons why you would do this. And to cooperate
6 with everybody to take care -- I mean, to establish
7 MPAs to, kind of in a coordinated fashion, to take care
8 of things that haven't been done in other management
9 venues.

10 I mean, I think that we've established it.
11 Maybe it needs to be elaborated and maybe put more
12 simply, but I don't understand why we're going down
13 that road.

14 DR. BROMLEY: Okay. You think the reasons are
15 in here. Okay. John Ogden?

16 DR. OGDEN: Thank you, Mr. Chairman. I agree
17 that we need to pay a little more attention to the idea
18 of a national system, and I'd just draw your attention
19 to the U.S. Ocean Action Plan which actually as far as
20 I can tell, the only place where what we're doing is
21 mentioned, actually goes into in a couple of paragraphs
22 a fair statement of integration, MOUs between competing

1 and overlapping agencies and the kinds of things that
2 would lead to better essentially central management of
3 what could be conceived of as a system.

4 I mean, I'm not suggesting that -- I think we
5 need to do a little bit more than what's in here, but
6 at least it's a start. I think it's a certain
7 recognition within this document that a system is
8 necessary.

9 DR. BROMLEY: Okay. Terry?

10 MR. O'HALLORAN: As I read that page 2, I only
11 see point 5 and point 6 that in my mind really relates
12 to what I would call a national system.

13 The first four, a state or another
14 jurisdiction can create an MPA that would meet this
15 criteria and wouldn't necessarily need a national
16 system. And I guess my point there is the need to
17 articulate what Dolly said when we use our WIIFM,
18 what's in it for me?

19 I mean, why would I as a state that have my
20 own MPAs want to take the extra step, the extra effort,
21 to have that MPA nominated and be part of a national
22 system when I can -- is it to help the national federal

1 government classify me easier. I mean, I don't think
2 that's enough.

3 It does identify some gaps perhaps, some areas
4 of protection that we haven't seen before and maybe our
5 area can help illustrate that. It might bring some
6 resources to bear in the future that we don't currently
7 have, some of those kinds of reasons.

8 It might be beneficial if we had another
9 little group that could maybe work on some language
10 that more clearly articulates what this national system
11 is. Because I know a lot of our discussions in our
12 subcommittees it was -- I know I had difficulty saying
13 are we talking about creating an individual MPA right
14 now, or are we talking about a national system?

15 And it was a little difficult to know quite
16 what we were talking about, or are we talking about
17 both. And I think right now we're at a point where we
18 really need to discuss more the national system and not
19 the creation of an individual MPA.

20 DR. BROMLEY: Yes. Tony?

21 DR. CHATWIN: Thank you, Mr. Chairman. I
22 agree with Terry that we should be talking about what

1 is the national system.

2 What I've heard a number of people comment on
3 regarding why -- where are the incentives to be part of
4 this national system. And that's something that in
5 Subcommittee 2 we sort of touched on and shied away
6 from and touched on again. And I think that that is a
7 real need, a good discussion about incentives for being
8 part of this.

9 However, I think that that would fall in the
10 category of action items for future action items. I
11 think we would spend our time better talking about what
12 is the national system and then later thinking of an
13 approach to engage about this incentives issue.

14 Because we may not be the right, you know,
15 this group alone may not be the best group to talk
16 about incentives. We need to hear from the states what
17 their incentives would be and the tribes, that sort of
18 thing.

19 DR. BROMLEY: Okay, good. Rod?

20 DR. FUJITA: Yeah. I think we're getting a
21 little stuck here in the way we're thinking about this
22 national system question, and we're putting unnecessary

1 constraints on our thinking. Because the national
2 system is not a reality. It's not like we're trying to
3 define the benefits of a national system that already
4 exists and articulate it in the document. We're
5 providing recommendations on what it could be or what
6 it should be.

7 So that means that our statement about the
8 nature of the national system could be very expansive.

9 It could include incentives. It could include all
10 kinds of benefits that aren't there yet arising from
11 more coherence, more connectivity, the bringing
12 together of individual units to generate benefits that
13 are greater than the sum of the parts.

14 That's the kind of language I think that we
15 should be talking, not trying to tease out the benefits
16 from something that doesn't exist.

17 DR. BROMLEY: Okay. Good. Mike?

18 DR. CRUICKSHANK: Yes. I was impressed with a
19 thought there that this -- the states of course can
20 make their own MPAs, and the question of individual
21 MPAs is something that's quite apart from the national
22 system.

1 The national system first and foremost means
2 that it's something for which all the taxpayers would
3 pay, as opposed to the state taxpayers paying. So it's
4 kind of like the national parks. Which ones get the
5 federal money, which ones have the federal uniforms for
6 the Park Service?

7 And with MPAs, that's what a national one
8 would be. It would be belonging to that group which
9 was funded by the federal government rather than the
10 state government.

11 DR. BROMLEY: Thank you. That's exactly the
12 confusion that we have here. Does national mean
13 federal? And you've touched on it, Mike. I mean,
14 we're unclear about that in here. Does a national
15 system, does it mean federal? Does it mean a
16 connection? I mean -- okay.

17 Let me look -- let me draw your attention to
18 line 21. This is one of the other issues. Definition
19 of MPA national system. I still believe that we are
20 unclear in our document about how we use these terms
21 like MPA.

22 And I will tell you that the report that you

1 have in front of you, the synthesis document, is a
2 compression and a reorganization of everything that the
3 three subcommittees wrote. So there's nothing that the
4 three subcommittees wrote that isn't in that document.

5 And there's only one piece of it that was not
6 in what the three subcommittees wrote, and that was the
7 very last section that I wrote. So the only thing in
8 there that is me is that last section.

9 And let me tell you one thing that I'm
10 concerned about, and it shows up in this last section.

11 And that is the use of the word MPA. You know, what
12 is this thing? My concern is, and I get -- I will say
13 I get very cross when I hear fisheries management
14 councils claiming that they do MPAs. My concern is, if
15 we're going to advocate the use of an acronym and a set
16 of words to describe something, we need to take very
17 great care of the way that word is applied.

18 And the danger that I see is, and this is just
19 now me, this is my own -- my view alone -- that if we
20 look back ten years from now and discover that there
21 are all these MPAs out there in the ocean, and as Joe
22 and others, Max have pointed out, once you designate

1 something it's going to draw attention and use, and
2 people will come to see what it is and want to get in
3 among it, and may devastate it and may degrade it, we
4 run the very great risk of having created a bunch of
5 stuff called MPAs and none of them will have worked
6 very well because they were created in ad hoc manner
7 without rules and regulations about the use of them,
8 and this worries me greatly.

9 And so, this point about the definition of an
10 MPA, if anyone can create them and if anyone can define
11 what's going to be done in them and to them and for
12 them, we will end up in a few years, my point is, with
13 a word that applies to a wide variety of well and badly
14 managed things, and, as I say in that last section, we
15 will undermine the very idea of what an MPA is.

16 Okay? Now maybe you feel I'm overly hung up
17 on this, but an MPA is a trademark. And that's why I
18 say Ford Motor Company, Rolex, whatever, people work
19 really hard to protect the integrity of what that word
20 means, whether you're BP Shell or something.

21 So I worry about this. Am I the only one who
22 worries about it? Rod? David?

1 DR. FUJITA: No. I think that's a very real
2 concern, but it's one of the benefits of having a
3 national system and nationally accepted definitions.

4 There's a bunch of state initiatives underway
5 to try to grapple with these issues, and they are going
6 to be ad hoc and uncoordinated unless the Coastal
7 States Organization and this national system sort of
8 have some kind of a top-down uniformity of definition,
9 so.

10 DR. BROMLEY: Meaning you can't be called an
11 MPA unless you meet these conditions?

12 DR. FUJITA: Yeah. Except it's a little less
13 strong than that.

14 DR. BROMLEY: Oh, well.

15 DR. FUJITA: What I have in mind is that, you
16 know, if the national system does indeed have
17 initiatives for states or single MPA sites, you know,
18 it would be beneficial to be nominated to the national
19 system. Then that creates an incentive for them to
20 conform to these guidelines.

21 DR. BROMLEY: And if they don't conform?

22 DR. FUJITA: And then there would be greater

1 uniformity in the regions and in the states.

2 DR. BROMLEY: Okay. David?

3 MR. BENTON: Well, Mr. Chairman, I think your
4 point is well taken. I guess I have a question for you
5 back.

6 DR. BROMLEY: Can you get a little closer to
7 the mike, please?

8 MR. BENTON: Sure. Sorry.

9 DR. BROMLEY: Since you're directing it to me,
10 I want to hear it.

11 MR. BENTON: All right. Looking at the
12 definitions that the Center has put together about
13 taking key words out of the executive order; you know,
14 geographic area, lasting protection.

15 DR. BROMLEY: Lasting protection.

16 MR. BENTON: All that stuff.

17 DR. BROMLEY: Yeah.

18 MR. BENTON: Is it your view that we are
19 missing something there? Or is that enough of a
20 branding for what an MPA is to move forward? Because
21 that's -- the message I picked up from what you just
22 said, I don't know whether I agree with it or not yet,

1 because I'm sort of thinking about it, but is that
2 perhaps those definitions don't provide the branding,
3 if you would, or the marketing of what the term MPA
4 means. I'd be very curious in your view about this.

5 DR. BROMLEY: They may -- they provide words
6 about intentions. They do not provide any lasting
7 assurance that, to use the word "lasting" -- that once
8 an area is designated as an MPA that there will be a
9 continuing commitment to manage it and control it in a
10 way that is implied by the category MPA, which is why I
11 get cross when fisheries management councils tell us
12 that they do MPAs. Because a fishery closure driven by
13 threat of a lawsuit and so on to me does not qualify as
14 an MPA.

15 Yeah, go ahead.

16 MR. BENTON: Well, Mr. Chairman, having coming
17 from something like that last week, I may disagree with
18 you.

19 DR. BROMLEY: I wouldn't be surprised if you
20 did.

21 MR. BENTON: Because that wasn't under threat
22 of a lawsuit.

1 DR. BROMLEY: I can't hear you. Speak --

2 MR. BENTON: I said that particular action
3 wasn't by threat of any lawsuit.

4 DR. BROMLEY: Well, I know.

5 MR. BENTON: But irrespective of that, and I
6 understand your opinions of fishery management
7 councils, the real issue is then one of governance.
8 Because what I hear you say is that -- I mean, what you
9 just said was the lasting nature, regulation, the
10 ability for us to say that particular area, whatever
11 area that is, is going to be protected from now on.

12 Some people listening to that would think that
13 what you're talking about is something more akin to the
14 national park system. Other people have different
15 views of what MPAs might be.

16 DR. BROMLEY: Absolutely.

17 MR. BENTON: And so really what I'm hearing
18 you talk about is governance structure, not necessarily
19 the branding issue.

20 DR. BROMLEY: Well, but governance and
21 branding go together, because you just used a brand,
22 National Park Service, and National Park Service

1 implies a whole regime of governance and expectations
2 and whatever.

3 And all I'm saying here is that we're using
4 the word MPA to mean a whole lot of things. And if
5 we're not clear about what we think we mean by that
6 word, then how can the public be clear about it, and
7 what are we talking about, all right? That's my point.

8 So I have Bob Zales and then I've got Rod.

9 MR. ZALES: Your analogy of using like Coca-
10 Cola or Ford or somebody, I mean, isn't like an MPA,
11 because I've struggled with this too. And my personal
12 opinion is an MPA can be anything from something as
13 simple as to a beach that you allow swimming that
14 you've got roped off, you don't allow boating, all the
15 way to the most serious part to where you have
16 absolutely no activity at all in an area, it's totally
17 protected. No one is allowed in there, period, unless
18 it may be some scientists for study.

19 And so at the same time, if you tag like say
20 Chevrolet, the ultimate Chevrolet -- or General Motors.

21 The ultimate General Motors vehicle is a Cadillac.

22 And you could go back as far as probably one of the

1 least comparable things would be like a Corvair from
2 years ago in General Motors.

3 So you have very -- I mean, if you're going to
4 use General Motors or Ford, you have different types of
5 Ford vehicles. And MPAs, you're going to have
6 different types of MPAs. So do you try to define each
7 individual or do you say an MPA includes all of this
8 from the least restrictive to the very most restrictive
9 and do it that way?

10 So, I mean, where are we there?

11 DR. BROMLEY: Yeah, where are we? I mean,
12 I've got a long list. Let me just say, you know, in a
13 sense, we have marine managed areas. We have parts of
14 the marine environment we don't manage at all, then we
15 have marine managed areas. I realize this is not the
16 way the words are used now. But then within something
17 called Marine Managed Area, we could have categories of
18 stuff of which an MPA has a very particular meaning in
19 something else.

20 But that's -- let me just tell you the list
21 now. I see I've created a hornet's nest here. Mike
22 Cruickshank, Mike Nussman, Tony, Rod, Joe, Bob Bendick,

1 Mike Cruickshank twice. Okay.

2 (Laughter.)

3 DR. BROMLEY: Really, Mike, you only get one
4 shot here.

5 (Laughter.)

6 DR. BROMLEY: But it's your turn. Go ahead,
7 Mike.

8 DR. CRUICKSHANK: My turn? Okay. Well, with
9 respect to this, when you think about --

10 DR. BROMLEY: Please go ahead. I'm listening.

11 DR. CRUICKSHANK: The best analogy to my mind
12 seems to be park. You have a city park, you've got a
13 county park, you've got a state park, you've got a
14 national park. And if you can somehow transform the
15 word MPA into an equivalency with park, there's -- and
16 the national park has to have something very special to
17 be a national park.

18 DR. BROMLEY: It means something. It's a
19 brand.

20 DR. CRUICKSHANK: The national MPA then has to
21 be something very special.

22 DR. BROMLEY: A word means something. A park

1 is different from a wilderness area, which is different
2 from a national monument, which is different from, what
3 Max, a trail, which is different from a refuge, which
4 is different from --

5 DR. CRUICKSHANK: That's my point.

6 DR. BROMLEY: Okay. Mike Nussbaum -- Nussman,
7 sorry.

8 MR. NUSSMAN: Thank you, Mr. Chairman. First,
9 I would say we've discussed this before, and I
10 disagree, and you know I disagree with your
11 interpretation of MPA. I'm much more akin to Mr. Zales
12 in his world view of what MPAs are.

13 And I guess all I would -- what I want to say
14 is, as we look in trying to define this issue, I think
15 we've made it all the more harder with your definition.

16 And I'm looking for some guidance from you. It seems
17 on one hand we're having a very difficult time defining
18 the advantages, the benefits of a national system.

19 DR. BROMLEY: Yeah.

20 MR. NUSSMAN: The way the federal government
21 often has solved the advantages of a national system is
22 to rain dollars down upon state and local governments

1 to make that the advantage or the benefit of being part
2 of the national system.

3 And I think we would argue that the Park
4 Service and the Wildlife, the Refuge Service and so on
5 and so forth all have federal dollars that go into them
6 in fairly significant amounts to benefit them and make
7 them part of the national system.

8 I guess one question I'd ask is, if we ask the
9 director of the Park Service and the director of the
10 Fish and Wildlife Service if we look at these refuges
11 and these parks, et cetera, other than the money, what
12 are the great benefits that accrue because of
13 membership in this national system?

14 So that would be the question I'd ask. But
15 the other point I would make is we had several
16 presentations yesterday, and at least the way I
17 interpreted those presentations, these are all folks
18 that should be interested and should be partners in
19 this effort, and they all by and large said, jeez,
20 guys, maybe the best interpretation would be what's in
21 it for us?

22 And we're really struggling with that. So if

1 we define none of the stuff they're doing or very
2 little of the stuff they're doing as meeting our
3 standards and we've got no carrot to wave at them to
4 get them to be part of the national system, I'm not
5 sure what we're left with.

6 Thank you.

7 DR. BROMLEY: Sure. No, that's fine. And
8 I'll back off of my high horse here. Tony, Rod, Joe,
9 Bob, Dolly and Jim.

10 Tony? Where's Tony? And Eric.

11 DR. CHATWIN: I think we spend a lot of time
12 trying to sort of clarify the definition that was
13 stated in the executive order. So I disagree with you
14 that we don't have a definition for it.

15 DR. BROMLEY: Okay. Okay.

16 DR. CHATWIN: I also think that if we all
17 agree to these clarifications and the work that
18 Subcommittee 1 did --

19 DR. BROMLEY: Will take care of it?

20 DR. CHATWIN: Well, then, if there is an area
21 that has been established by a fishery management
22 council that fits into this. It is an MPA.

1 DR. BROMLEY: It's an MPA. Okay. Fine.

2 DR. CHATWIN: And I think that we -- the fact
3 that this incentives issue, what's in it for me, keeps
4 coming up, just highlights how important that piece of
5 it is. And we haven't been given the mandate
6 necessarily to talk about that. We don't have access
7 to funds, et cetera, et cetera, et cetera.

8 DR. BROMLEY: Yeah.

9 DR. CHATWIN: So --

10 DR. BROMLEY: Okay. That's fine. Okay. I've
11 got Rod. I have Rod, Joe, Bob Bendick, Dolly, Jim and
12 Eric Gilman.

13 DR. FUJITA: Yes. Just to respond to what
14 Mike Nussman said, I don't think it's that difficult to
15 articulate the benefits. It's more than financial
16 incentives in this case. It's the difference between
17 randomly dispersed units having the localized benefits
18 versus a coordinated network in which the sites are put
19 in places that are self-reinforcing.

20 So there are ecological benefits that arise
21 from thinking through intelligently, based on
22 ecological principles, where the MPA sites ought to be,

1 rather than putting them in areas of political
2 convenience.

3 The other thing I would say is that I think
4 this is less about definition and more about are the
5 MPAs built to last, or are they going to become paper
6 parks? That would be an embarrassment.

7 DR. BROMLEY: Become what?

8 DR. FUJITA: Paper parks.

9 DR. BROMLEY: Paper parks.

10 DR. FUJITA: Unenforced areas. That truly
11 would be an embarrassment and a disservice. And I
12 think we can avoid that by having very strong
13 recommendations, which we do, and dispersed through
14 this document. They're not pulled together.

15 But in the stewardship committee and in other
16 sections of this, we say things like MPAs need to have
17 a sustainable source of financing. There needs to be a
18 commitment to monitoring and evaluation.

19 There needs to be a commitment to enforcement
20 and creating a culture of compliance so that they work,
21 and there needs to be a commitment to adaptive
22 management, which means learning from experience, and

1 adjusting as things go on.

2 So I think that in addition to being clear
3 about definitions, you make the very good point that we
4 need to make sure that these MPAs are not useless and
5 that they persist, and if they're not working, they're
6 fixed.

7 DR. BROMLEY: Okay. Joe?

8 MR. URAVITCH: Okay. Just a couple of points
9 based on what I've been hearing. I think the first
10 question is how far the committee needs to go at this
11 point on this definition question.

12 I think Bob Zales had an excellent analogy
13 with the whole GM approach. Because if you look at
14 this array of sites we're talking about, it is from the
15 Cadillac to the Corvair that we're dealing with.

16 That's part I think of the next phase of this
17 whole process, if you think back to the last meeting,
18 in which we're moving from the MMA criteria to the MPA
19 criteria, that's part of what we're going to be
20 defining.

21 So I think what the agencies need is some
22 guidance from you on where you think this direction

1 ought to be, especially if there's something very
2 specific. Because we're going go through this quasi-
3 regulatory process of defining those terms further for
4 those three themes or values we're talking about, which
5 then tells you whether you've got a top of the line
6 Cadillac or a middle Cadillac or, you know, the best
7 Chevy you can get or somewhere in between.

8 In terms of definition, obviously governments
9 are free to do and call things what they want to call.

10 So, you know, keep in mind that while we're sort of
11 just setting I guess a de facto standard or guidance
12 for the country, each government -- federal, state,
13 tribal -- can call things what we want to call it.

14 DR. BROMLEY: Yeah.

15 MR. URAVITCH: And we certainly hope there
16 will be some clarity brought to this through this
17 process. But I don't think we can get there at this
18 point. And we certainly don't have the authority to
19 make that happen.

20 Just looking at a couple of other things on
21 the list, this whole MMA business, I will point out, as
22 Gil was mentioning earlier in the Ocean Action Plan,

1 that term Marine Managed Area is used in there. That
2 was actually picked up from the work that we've all
3 been doing over the past several years to look at this
4 broader category of things that are happening.

5 And finally, maybe it's because we're in
6 Virginia, but I was thinking of this national versus
7 federal thing, and I was thinking confederated national
8 system of MPAs.

9 (Laughter.)

10 MR. URAVITCH: Because what we're really
11 talking about here is a confederation of federal,
12 state, territorial and tribal governmental authorities.

13 DR. BROMLEY: Yeah.

14 MR. URAVITCH: For what it's worth.

15 DR. BROMLEY: No, that's good. Yeah. I think
16 we're making some headway. Nobody buys a General
17 Motors car. They buy a Corvair or a Chevrolet or
18 something, and that's why Toyota and these other
19 companies got away from -- that's why -- who knows who
20 makes Lexus? Who knows who makes Avalon, all right?
21 They're trying to hide at one level, branding, and
22 they're trying to get you to rebrand in a different

1 way.

2 So what things are called does matter.

3 Okay. Bob Bendick.

4 MR. BENDICK: Okay. Some of what we've been
5 discussing seems to stray away from the document that
6 we produced here. We could spend a lot of time
7 defining a national system, but it seems to me the
8 thread that brings it together is a representative
9 system that protects our common heritage for the
10 production of sustainable resources for biological
11 diversity for a variety of cultural diversity, and
12 there's great value in that.

13 And it's something that's the hundred-year
14 tradition in our country. Just because it's underwater
15 doesn't mean that it's something weird or new.

16 Secondly, the issue about incentives. On page
17 6 of our document, we have almost a whole page talking
18 about incentives and rewards for entry into the
19 national system. And if we're without that, if that is
20 not part of our platform, then we're nowhere, because
21 that's the way these things are built historically in
22 our country, and particularly if we want to elicit sort

1 of grassroots people working together, if we don't have
2 incentives, it's unlikely that's going to happen.

3 The system it seems to me is defined by the
4 standards for creation of it that we've also put in the
5 document. You have to do certain things, regardless of
6 the goal of the individual MPA, to enter into a
7 national system, we have to follow this process.

8 The missing thing I think is what Eric Gilman
9 talked about earlier is some sort of follow-up to
10 ensure that whatever has been created continues to
11 measure up to those standards.

12 And finally, I think that there's a good
13 lesson in the wildlife grant process that is now
14 underway throughout this country. Every state has to
15 do a state wildlife plan that, in accordance with a
16 certain process, that makes it eligible for federal
17 funding in the future under the state wildlife grant
18 program.

19 And the objective of doing that passed by
20 Congress is to have some system in place that protects
21 the diversity of wildlife and the diversity of human
22 use of wildlife in the country.

1 That's not some foreign concept, and I think
2 that's what we're talking about here. There can be
3 lots of kinds of marine protected areas. But we're
4 talking about that collectively in some orderly way
5 based on the views and opinions of the people of the
6 country protects our common heritage.

7 And our common heritage, particularly when
8 it's connected, entirely connected by water, is
9 something of value to us that far exceeds the
10 individual bits and pieces of whatever people want to
11 do.

12 DR. BROMLEY: Okay. I have Dolly, Jim, Eric
13 Gilman and Bob Zales.

14 Dolly?

15 DR. McCAY: I pass.

16 DR. BROMLEY: You pass. Jim?

17 DR. RAY: I just wanted to comment that, you
18 know, at our very first meeting of this committee when
19 the various speakers talked to us about the reasons for
20 a national system, I thought they did a fairly good job
21 of articulating what the benefits would be to trying to
22 have an overall national system to try to help

1 coordinate all of the smaller programs around the
2 country, I thought that was well articulated.

3 My concern is that if we get too prescriptive
4 on what an MPA is and is not, what you're going to do
5 is you're going to have a hard time getting buy in and
6 cooperation from all of the states and other entities
7 that manage marine areas to participate in the system.

8 And, you know, the real success is that, you
9 know, if this goes forward as a national system is that
10 all the users out there and all the various different
11 marine managed areas participate, and they have the
12 option to participate or not.

13 So, you know, we just have to be careful that
14 we don't doom the thing to failure before it starts.

15 DR. BROMLEY: Yeah. Fair enough Eric Gilman?

16 MR. GILMAN: I think this reiterates what I
17 said earlier, but I'll suggest again that we focus on
18 the implementation process and avoid definitions. The
19 process to be laid out in our document for establishing
20 and managing the MPA system can preclude the necessity
21 to define what an MPA is and avoid including an MPA
22 classification scheme.

1 If we ensure that we sufficiently define
2 national system, include sufficiently detailed
3 standards and criteria for an MPA to be added to the
4 system, and require specific performance criteria to
5 ensure the MPA is meeting its goals, then the
6 definition of an MPA and a classification scheme aren't
7 needed.

8 DR. BROMLEY: Good. Thank you. Okay. Bob
9 Zales, and then Lelei.

10 MR. ZALES: I guess to try to get real simple
11 in all due respect to you, Mr. Chairman, if we were to
12 define an MPA as an example as a total no activity
13 area, then I think our job is going to be real simple.
14 It's going to be real easy to get in and out of here
15 because you're going to have very little buy-in to that
16 anywhere in this country if you're going to say, okay,
17 all MPAs are going to be strictly no activity.

18 And I think that one of the values, when
19 you're looking at the values of a national system, I
20 think one of the values is because of all the confusion
21 that's out there, that when you mention MPA, the vast
22 majority of people out there view that as an area where

1 there's absolutely no activity.

2 And I think that what we've tried to do and I
3 know what I've tried to do is try to kind of spread out
4 the word MPA to say that no, it doesn't necessarily
5 include an area that you don't have any activity, that
6 it's just an area that is in some cases for protection
7 of certain habitat, for protection of certain
8 activities and things like this.

9 So it kind of gets into that situation if
10 we're only going to have a single definition for an
11 MPA, then let's define it and get on with it. And if
12 we're going to have an MPA that's going to be
13 representative of various types of protection, then
14 let's do that too.

15 But I think that you need, and one of the
16 advantages I think of a national system is kind of like
17 a national dictionary, that it lays it out there so
18 that if when you mention some type of MPA, it's clear
19 what that means. It's not a vague term that people
20 view it in its most restrictive manner.

21 DR. BROMLEY: Very good. Let me say that
22 nowhere in my discussion did I ever mean that an MPA is

1 no activity or no something, okay.

2 MR. ZALES: I understand.

3 DR. BROMLEY: That's not the point. In fact,
4 the way the fisheries management councils are doing it,
5 it is more damaging, because how do the fisheries
6 management councils define an MPA? It's a no take
7 area, it's a no-go area. So in a sense, the way that
8 word is used in a management strategy is precisely the
9 thing that you are reminding me is dangerous, okay. Do
10 you see my point?

11 Nothing about an MPA in the way I use that
12 word means you can't do anything. It just means it is
13 a piece of the ocean habitat, which is under some
14 structured management regime. You may be able to dive
15 in it. You might be able to fish in it. You might be
16 able to go pray in it. You might be able to do all
17 kinds of things.

18 But when a closed area, when a no-take zone,
19 becomes, quote, "an MPA," you are immediately sending a
20 signal about what this word means to people. Am I
21 wrong there?

22 MR. ZALES: No. And I --

1 DR. BROMLEY: David Benton. You know, you
2 guys just implemented a huge closure, and it kind of
3 gets talked about. Not you guys, your former employer.
4 You know, the fisheries management council hammered
5 down on some fishing areas. And it's a no-take zone
6 and it's a no-go zone. And this is called an MPA. The
7 question is, does this do harm to the larger
8 conversation about structures to manage ocean habitats?
9 Do you see my point, Bob?

10 MR. ZALES: Yeah --

11 DR. BROMLEY: Sorry to come back at you so
12 strongly.

13 MR. ZALES: No, no. I agree with you. And I
14 didn't mean to imply that you meant --

15 DR. BROMLEY: Okay. I don't mean that.

16 MR. ZALES: What I'm saying is, because I'm
17 with you there, that is what I view as a big problem --

18 DR. BROMLEY: That's a danger.

19 MR. ZALES: -- right now with the MPAs, is
20 that they are viewed in most cases as total no-take
21 areas.

22 DR. BROMLEY: Yeah. Stay out.

1 MR. ZALES: And there's varying degrees of
2 MPAs that don't include that.

3 DR. BROMLEY: Yeah.

4 MR. ZALES: So that's where -- and I think
5 that we've done a reasonable job in this document of
6 trying to define that to people. When I read this, and
7 I guess it's because, you know, I was party to help
8 develop this thing, I understand it.

9 DR. BROMLEY: Yeah.

10 MR. ZALES: And, you know, that was where
11 initially when I said because of the glossary and the
12 different terms that we've used that I was so adamant
13 that those things need to be highlighted. Because you
14 can read this, and if you don't understand what one of
15 the highlighted things says, then you could take it in
16 a different manner than what it's meant to be.

17 DR. BROMLEY: Yeah.

18 MR. ZALES: And those are the kind of things
19 that need to be explained to the public, and that's
20 where, you know, you need some kind of definition,
21 whether you're going to call it a Class 1 MPA, a Class
22 10 MPA --

1 DR. BROMLEY: Whatever.

2 MR. ZALES: -- or whatever, they need to be,
3 you know, it's like I've used the analogy with the
4 different vehicles under General Motors' name. You
5 know, you've got varying degrees of MPAs.

6 DR. BROMLEY: That's all I'm saying. I just
7 worry about closures for any reason, no-take zones off,
8 that gets labeled MPAs, we are in trouble. We might as
9 well go home.

10 Okay. I've got Lelei and I've got a whole
11 bunch of people now. David again and Bonnie and Mel.
12 Somebody else? George. Lelei, go ahead.

13 MR. PEAU: Mr. Chairman, I'd like to bring a
14 practical side to the discussion. I think I hear a lot
15 of pointed made in terms of the MPA as a planning tool.

16 Two or three years ago when we were asked by the
17 Center at NOAA to partake in the MMA inventory, the
18 first reaction from local fisheries communities was
19 that they're taking their rights away.

20 The second reaction is that there are
21 informations that are classified that they do not want
22 to share. I think with time they become aware of the

1 value and their participation in the exercise, it
2 allows them to showcase their experience and the
3 knowledge that they have.

4 But I think one of the fundamental things that
5 we have, one of the key principles, that regardless of
6 what you want to call it, a federal or a national MPA,
7 if it's not applicable to the local situation, they
8 would not use it. I think what I'm hearing is that we
9 need to allow flexibility in the national system.

10 I think the reality of this exercise is really
11 to see what's out there. It's an inventory. Allow us
12 to network with among coastal states and the
13 international community as well. But let's do not be
14 too descriptive in a definition, but at the same time,
15 I think the discussion is focused on the framework, a
16 framework that might not fit -- might not be applicable
17 to some jurisdiction.

18 But nevertheless, I think we are providing a
19 fundamental tool for people to see how it's done
20 elsewhere. I think there's a lot of models that has
21 been discussed, but we also recognize one size doesn't
22 fit all. But I think we're missing an opportunity, I

1 think the charter calls for us to look at -- to come up
2 with a definition that will capture a different array
3 of models that is in existence.

4 I think we are -- I do not want to sound that
5 I'm not in support of the national framework, but I'm
6 mindful of the fact that whatever definition or
7 whatever framework that we come up with, it's really up
8 to the local jurisdiction how that will apply, as I
9 said. Regardless if they are going to fit the national
10 model, they will continue with their traditional
11 practices.

12 But I think the opportunity is there for us to
13 network, opportunities -- plenty tools are available
14 for some of the jurisdictions if they want to part of
15 the national system. And our purpose here is to
16 provide how that can become -- how the traditional or
17 local practices can become part of a national system.

18 I don't think they are mandatory to be part of
19 the network if they feel it's not applicable to their
20 daily practices. So I think there's got to be some
21 flexibility. I think let's try to stay away from too
22 restrictive in our definition, because then I think

1 that we can continue on with the debate. But I'm
2 worried about losing focus on what calls in the
3 charter.

4 So with that note, Mr. Chair, I strongly
5 recommend that we move forward with our discussion.

6 Thank you.

7 DR. BROMLEY: Yeah. Good. Thank you. David
8 and Mel, and then we will move forward, Lelei.

9 MR. BENTON: He sort of summarized a lot of
10 the thoughts that I was having, Mr. Chairman. I find
11 it peculiar that we feel threatened if a fishery
12 management council actually did what we might think
13 would be a good thing, and our own personal biases
14 aside, they did that. And I don't see why we would
15 want to exclude that from our definitions or what we
16 are thinking about.

17 And absent new legislation that gives new
18 authorities, what I thought our charge was and what
19 Subcommittee 3 looked at was how do you take existing
20 authorities, existing structures and existing programs
21 and try and make some sense out of that into a national
22 system and what would a national system look like,

1 given that array out there.

2 And that's why I think you saw some of the
3 things in there that you've reflected well in this
4 paper, which is the tension between a centralized sort
5 of top-down and a decentralized, bottom-up regional
6 approach. How do you deal with that tension in a
7 balanced manner? How do you provide a reason for
8 people not to feel threatened by the idea of a national
9 system of MPAs, existing jurisdictions, other users
10 different array of public interests? How do you build
11 something that not only do people, they don't see it as
12 a threat, they see it as a benefit?

13 So in the work that Bob did and our committee
14 under Mel's leadership, we looked at things, what kind
15 of incentives are there? Well, there aren't a heck of
16 a lot right now other than maybe additional funding,
17 perhaps the ability to collaborate with their peers
18 across jurisdictions, and perhaps a better management
19 framework to sort of work within.

20 But you have to build a lot of carrots into
21 any system given the absence of new legislation and new
22 statutory authority, it seems to me like. And that's

1 where the regional thing comes in. And I think, you
2 know, other than sort of as -- the word that keeps
3 coming to my mind is sort of fear-mongering about what
4 we might be doing to ourselves if we actually permit
5 some of these activities to look like they are MPAs.

6 I think we've got a reasonably decent product
7 going, and I think we've got a way to look at how a
8 national system could build on these existing
9 structures that are in place now and do good things for
10 the marine environment. That's all we really care
11 about; doing good things for the marine environment,
12 making sure that people who live out there, work out
13 there, recreate out there, that those folks' interests
14 are accommodated and taken care of for the long haul.

15 And I think, you know, I'm agreeing with my
16 colleague down the table here. I think we've got a
17 reasonably decent product. I think we need to build on
18 what are those incentives a bit and some of these other
19 issues. But I don't see the issues in a way.

20 DR. BROMLEY: Okay. Mel? And then this will
21 be the last comment, except for me. Mel?

22 MR. MOON: Okay. I think there is a theme

1 that's starting to develop here in some of the latest
2 discussions. We're getting bogged down in sort of this
3 definition of what an MPA is.

4 And I think David said it pretty well. The
5 way we saw it was there was a whole list of MPAs out
6 there, but the real issue was getting some buy-in
7 through regional participation, and having the regional
8 forums, whatever they may be in terms of issues, drive
9 that to their list of benefits.

10 So I think that the buy-in for this whole
11 process is allowing the grassroots process to take
12 place. The question is, is there enough benefit once
13 you establish a standard for anybody that's doing
14 anything in marine management to cross the line and now
15 be a national, recognized as a national system, will
16 anybody want to do it?

17 And I think that's -- I think we should work
18 more on the implementation and the process of groups
19 working together and also making sure that if we are
20 talking about lasting and beneficial what's in it for
21 me type of questions, that we work on what is that
22 carrot and is it going to work.

1 So I would say, you know, MPAs are, I mean,
2 they're all kinds of things. Let's move on. Let's go
3 on to what do we bring them -- how do we bring them
4 into either a new name structure or a national MPA
5 status. But again, I think my concern is nobody will
6 show up.

7 And then the other thing is that I don't see
8 this as a governance issue where we're establishing
9 national parks in the water. This is not where I think
10 it is. That's something that happens out there, but
11 that's one of many things that takes place. So I don't
12 see this exercise we're doing as one where we're trying
13 to create federalism in our marine areas.

14 DR. BROMLEY: Okay. I give up. David, let me
15 say that, you know, you made some reference to personal
16 values aside and so on. I have no trouble with
17 fisheries management councils closing areas for
18 protection. I have no trouble with that, all right?
19 It doesn't offend me a bit. And I'm sorry I said they
20 do so under threat of lawsuit. I shouldn't have said
21 that.

22 The only point I'm making, I guess I'm not

1 successful at making myself clear. The only point I
2 make is that if closures and no-take zones, whoever
3 does it for whatever reason, if those become associated
4 in the public mind with MPAs, then the selling job for
5 other MPAs on the coast in the water is going to be
6 unnecessarily confounded. And it will raise horror
7 stories about putting fishing people out of business
8 and putting crabbers out of business and putting other
9 people out of business, and this makes our job harder.
10 That is my only point.

11 And I don't want to sit around fighting over
12 what an MPA is or is not, but I guarantee you, the
13 public has ideas about it. That's my point. And I
14 promise to say no more about it. I will keep my mouth
15 closed.

16 But what we call things sends signals to
17 people, and it gets their back up or it doesn't. I'm
18 through. I won't resign my job.

19 (Laughter.)

20 DR. BROMLEY: I'm not about to give this chair
21 up, but I'll be quiet.

22 MS. WENZEL: In the hopes of clarifying I

1 think the way the terminology has been used to date is
2 that no-take reserves or no-take areas are one type of
3 MPA and that there are many others.

4 DR. BROMLEY: That's right. But then we've
5 got to explain to people. Now I've created a whole new
6 nest of problems. Terry, Mark, David, Bonnie. Terry?

7 MR. O'HALLORAN: Well, I kind of wish Tundy
8 were here, because I think that she would be hearing
9 some passion.

10 DR. BROMLEY: I know. Yeah, that's right.

11 MR. O'HALLORAN: Mr. Chairman, I think what
12 you wrote in this document in the last section under
13 implications kind of talks about your feelings about
14 this.

15 DR. BROMLEY: Yes.

16 MR. O'HALLORAN: And which I agree, I think
17 you did a very good job.

18 DR. BROMLEY: I can't hear you. Wait a
19 minute. Brian, I'm sorry. Yeah, go ahead.

20 MR. O'HALLORAN: I think you did a very good
21 job in that. In a lot of ways, the term MPA today in a
22 lot of areas does mean no-take closure. I know in the

1 area I come from, you talk about MPA and that's where
2 people go to.

3 And I think our job, and I think you've talked
4 about that under that implication section, our job is
5 to help market the idea, the concept that MPA is much
6 more than that. It's more broader than that, and it's
7 more caring and more sensitive to the people who use
8 areas of the ocean than perhaps it currently is
9 perceived.

10 So a lot of what you're saying -- I have a
11 sense that we all are in agreement with that. I don't
12 really see a lot of disagreement between what people
13 are saying. I think that we're maybe getting stuck a
14 little bit in semantics, but I think we all basically
15 agree with that very concept of what you've illustrated
16 in that implications section.

17 DR. BROMLEY: I'm not sure we all do, but I
18 don't think Tundy does and I'm not sure Mike does. But
19 anyway, so we can take it out, too. That's fine.

20 Okay. I have Mark and Dave. Anybody else?

21 Gil and Bonnie. Mark?

22 DR. HIXON: Thanks. I've been listening to

1 the discussion, and I also don't hear a whole bunch of
2 disagreement. I believe it's fairly clear in the
3 document and the intent around the table that
4 protection in a marine protected area ranges from
5 managed use to no access. That's the range of
6 protection that's afforded that's explicit in the
7 glossary under the word "protection," which is actually
8 out of order alphabetically right now, but it's in
9 there.

10 So it seems that all we need to do is just
11 make it very clear in the document what we mean by
12 protection, along with all the other key words in the
13 definition of MPA, which is what the document does, I
14 believe. Thanks.

15 DR. BROMLEY: That's fine. Thank you. Dave?

16 MR. BENTON: I'll pass.

17 DR. BROMLEY: Gil?

18 MR. RADONSKI: I think that Mark just hit the
19 nail on the head, and I talked about it yesterday with
20 regard to Table 1. And if you look at the definition
21 that we have for protection, it gives a full range.

22 My personal philosophy on MPAs lines up with

1 Bob Zales and Mike Nussman and almost with the last
2 comments you got in your sort of p'd off remarks that
3 you just concluded.

4 DR. BROMLEY: Teed off? Frustrated.

5 MR. RADONSKI: But, you know, also, looking at
6 the action plan, the administration's action plan, if
7 they're throwing out hints, they mention marine
8 protected areas once, and then they discard it and go
9 into a discussion of marine managed areas. Maybe
10 that's a hint to us to stop the marine protected areas
11 thing and deal with marine managed area.

12 DR. BROMLEY: I could get interested in that,
13 but I won't. Bonnie, then Rod.

14 DR. McCAY: Well, first of all, I apologize
15 for having brought this up yesterday, this issue of
16 definition. You know, if it's taken up time from the
17 things we have to do.

18 But I do think it is important. In the
19 introduction, it seems to me that all we need to do is
20 to take the definition from the executive order, and
21 then later on, you know, it's developed further. Just
22 put that in there. Also have in the glossary, which we

1 don't have now, marine protected area, put it in there.

2 If we want to deal with this issue of marine managed
3 area, put it in there, too. That's still not there.

4 So a stranger looking at this wouldn't know
5 what we were talking about except by implication. So I
6 would suggest in the executive order, we go ahead, use
7 the executive -- I mean, in the introduction, use the
8 definition, then put, for example, and try to give a
9 sense of the range that I think we all agree about.
10 Because that would be really important, too.

11 Then we don't have to do much more
12 definitionally there. But I also want to speak, just
13 briefly enter this debate about what the fisheries
14 management councils are doing. And they've gotten the
15 strong message that they're using area based
16 management, which we might be considering as, you know,
17 a structured protection of an area.

18 DR. BROMLEY: Yeah.

19 DR. McCAY: It's not an MPA. So they're being
20 told not to call that an MPA. And we have this lasting
21 protection issue here that then makes it difficult to
22 see what they're doing as MPAs. So it's a real

1 problem. But anyway, that's my modest suggestion.

2 DR. BROMLEY: Good. Thank you. Okay. I have
3 Rod and Mike Cruickshank, and then maybe we can move
4 on.

5 DR. FUJITA: Thanks, Mr. Chairman. I think
6 Mark Hixon and Bonnie have made really good
7 suggestions. Because I think this debate really -- the
8 solution to this problem that you've articulated is not
9 to shy away from the fact that no-take reserves are a
10 form of MPA.

11 DR. BROMLEY: That's right.

12 DR. FUJITA: It's there. People already
13 perceive MPAs as no-take zones, as Bob Zales said. Our
14 task is not to ignore that or try to define it away,
15 but to tackle it head on by educating people about the
16 fact that MPAs is a broad term, and there's many
17 different kinds.

18 And also, I mean, let's not forget that the
19 reason no-take reserves are the hot button issue in the
20 whole MPA debate is because MPAs have been around for a
21 long time, but the scientific and empirical evidence
22 suggests strongly that it's the no-take reserve which

1 has very strong restrictions, that's the one that seems
2 to produce the benefits. It's harder to demonstrate
3 the benefits of a multiple-use MPA simply because the
4 scientific inference is more difficult when there's
5 compounding variables, right?

6 DR. BROMLEY: There's more to it. I mean,
7 sorry, but the benefits of some areas -- well,
8 nevermind. Okay. Mike Cruickshank. Then maybe this
9 is the last.

10 DR. CRUICKSHANK: I was drawn again by what
11 Terry was saying to the page 15 and 16 which I
12 understand now that you have written. And I had marked
13 this when I reviewed it as a big strike, and I said it
14 was very good. Because I agree with that entirely. I
15 think you've hit the point. You've got to make this
16 MPA a household word and a nonthreatening word. That's
17 one of the big issues that we have to deal with. Thank
18 you.

19 DR. BROMLEY: Good. All right. We will not
20 deal with this any more except, you know, as it works
21 its way in. Let me take stock of where I think we are.
22 We do have a group of people who are going to provide

1 some language about regional things. Is that right?
2 And we have a group of people that was going to help us
3 tighten down the language about the value of a national
4 system. Am I correct in this? I have two sets of
5 volunteers.

6 MS. WENZEL: I think we have the volunteers
7 for the classification system, but not the value.

8 DR. BROMLEY: Oh, the classification system.
9 Oh, that's right. Okay. Maybe, I mean, one of the
10 things, do we need to designate a group to work on the
11 value of a national system, or do we just sort of think
12 about that as we look at language? I think I have a
13 preference for the second, but if a bunch of people
14 want to volunteer to work on that language, we can do
15 that.

16 Yes, Gil?

17 MR. RADONSKI: Before we just arbitrarily move
18 on, I think Bonnie made an excellent suggestion, and I
19 would like to see if we have a consensus for that.

20 DR. BROMLEY: Okay.

21 MR. RADONSKI: And if I misspeak, just say so,
22 Bonnie. But what I heard was use the definition that's

1 in the executive order and then have just in
2 parentheses say this report defines protection as, and
3 we have that defined in there. I find that definition
4 acceptable. Is there a consensus for moving ahead with
5 that or not?

6 DR. BROMLEY: Yeah. So that deals with the
7 line 21 thing, this whole thing about definition. Is
8 that okay? Good. All right.

9 Let me call your attention to what I think is
10 the other big issue which we do need to address, and
11 that's on line 46, implementation.

12 Now do you think that it would be useful for
13 us to address implementation now and here? Max
14 Peterson has asked that we do two things; that we do an
15 executive summary. Of course, we will do that
16 somewhere, all right? I mean, sometime. Not this
17 meeting, but we probably need to come to our May
18 meeting with an executive summary of this document.

19 Max has also asked that we have a list of
20 recommendations. And my thought here is that in one
21 sense, the whole document is a recommendation. So,
22 Max, you know, I'd be willing to let you make your

1 case, but I have a hard time, aside from an executive
2 summary, I have a hard time knowing how we're going to
3 take these fairly dense -- and I mean that as a
4 compliment, not as a put down -- fairly thick set of
5 language here, and extract out of it recommendations.

6 So, Max, I'll give you the floor, and then I'm
7 going to talk and get Gil and Mary.

8 MR. PETERSON: Well, I think you have a point
9 that much of it is recommendations. My only concern
10 is, part of it is obviously background information.
11 Part of it is setting the stage. And then we've got a
12 lot of verbiage under different headings. And even
13 part of that is sort of background.

14 And so if I read through that, it would be
15 hard for me to understand what does this group really
16 want us to do. And so I think at least somehow, when
17 we get to, for example, implementation and this sort of
18 thing, I think there need to be clear recommendation.

19 And I'm not saying -- the whole report in some
20 respects is a recommendation, but I'm just reading for
21 the first time this Federal Register notice that I've
22 read in the last couple of days about inventory of

1 MMAs. This sets out a whole process which we haven't
2 even looked at in connection with what we're saying.

3 So I think in order for our recommendations to
4 mean anything to the people who read it, it needs to be
5 fairly clear what we're recommending as an advisory
6 committee.

7 DR. BROMLEY: Yeah.

8 MR. PETERSON: And I'm prepared to recognize
9 the whole report as a recommendation by the Advisory
10 Committee, but there needs to be within that some very
11 specific I think recommendations or we're going to get
12 lost. That's my point.

13 DR. BROMLEY: Okay. Very good. Gil?

14 MR. RADONSKI: Yeah. I agree with Max, and I
15 would like it further refined that these action items
16 or recommendations, whatever we call them, be listed in
17 immediate action and future, which will give us some
18 head start on the end of our report where this
19 committee is going beyond the immediate thing of
20 discussing a national system.

21 DR. BROMLEY: Good. Okay. Eric Gilman.

22 MR. GILMAN: Just a quick comment on a

1 suggestion for next steps for improving the document.

2 DR. BROMLEY: Yes.

3 MR. GILMAN: I think the two priority areas
4 that are in need of attention include clarifying what
5 we mean by a national system. That's I don't think
6 included on the wall as one of the areas that you're
7 going to have us work on. So that would incorporate
8 defining what the values are to establishing the
9 system.

10 DR. BROMLEY: Yes.

11 MR. GILMAN: So you would talk about
12 networking individual MPAs, sharing resources for
13 management, ecological connectivity, that kind of
14 thing.

15 And then the second priority area is
16 implementation, but not in the sense that you've been
17 looking at it. It would deal with adding more
18 substance to the section on implementation in the
19 document for process. What are the standards for an
20 MPA to be added to the system? What are performance
21 criteria for that MPA in order to maintain its status
22 in the system? That kind of thing.

1 DR. BROMLEY: Very good. Mary, has your hand
2 been up?

3 MS. GLACKIN: I'll pass.

4 DR. BROMLEY: John Ogden.

5 DR. OGDEN: Just a quick comment. I agree
6 with what Eric just said, but I do think that we have
7 to keep coming back to the executive order. We're
8 dealing with a national system. And the why up there
9 on the wall that we discussed earlier is the why for a
10 national system.

11 And so I think we had our discussion in that
12 respect took into account what I think you're saying,
13 Eric, which I agree with, which is we need to
14 essentially establish that sort of up front.

15 DR. BROMLEY: Okay. Mike?

16 MR. NUSSMAN: Mr. Chairman, I want to go back
17 to Max's original comments. I do think we would
18 benefit tremendously from having a short list of
19 recommendations.

20 DR. BROMLEY: Okay.

21 MR. NUSSMAN: Having said that, we may get to
22 try and write them and realize we can't. So if we

1 can't, then it becomes an executive summary.

2 DR. BROMLEY: But we should try. Your point
3 would be, Max, that we should try to write something?

4 MR. NUSSMAN: Work hard at trying, and if you
5 can't do it or it doesn't lend itself to it, then we
6 give up.

7 DR. BROMLEY: Yeah. Mel?

8 MR. MOON: I notice that we've gone through
9 most of these sections with the exception of line 34 on
10 the political reality and political will. Are we going
11 to have a discussion about that today?

12 DR. BROMLEY: I thought we did, but maybe we
13 didn't cover it adequately.

14 MR. MOON: I apologize. I wasn't hearing.

15 DR. BROMLEY: Pardon me?

16 MR. MOON: I apologize. I wasn't hearing.

17 DR. BROMLEY: Well, I think we kind of dealt
18 with it, Mel. We'll talk about -- yes, Bob?

19 MR. BENDICK: I think we talked a little bit
20 earlier about incentives and money. And we probably
21 need to, when we think about implementation, figure out
22 how to tie that to some of the other things that are

1 going on in the world around us.

2 DR. BROMLEY: Yeah.

3 MR. BENDICK: It's not sitting out in space.
4 Recommendations in response to the Oceans Commission
5 and other stuff going on, because without being, you
6 know, sort of explicit about that, I mean, we can't
7 come up with the money, but we can sort of set it in
8 context. We have a big, big piece missing here.

9 DR. BROMLEY: Could I find some people who
10 want to work on implementation? Eric. Mary. Good.
11 John and Mike.

12 MR. NUSSMAN: Can I ask? Mr. Chairman, if I
13 could, before I raise my hand, and actually it's after
14 I raised my hand, can you define implementation for me?
15 I've heard implementation discussed in several
16 different ways, and I'm not quite sure what we're
17 talking about.

18 DR. BROMLEY: I'd be happy to have others -- I
19 think what people mean by it is sort of next steps.
20 Next steps not for us, but next steps. But let
21 somebody else. Eric, you volunteered for this group.
22 If you went into a room, what would you focus on, Eric?

1 MR. GILMAN: My sense of implementation means
2 how the system would be established and managed, the
3 process.

4 DR. BROMLEY: How would that differ from the
5 elaborate language we have in here about nomination and
6 all of this? Is that part of your question, Mike? I
7 mean, what do we mean by this? Mary?

8 MS. GLACKIN: I think we do have a start of it
9 in the document, but I think that some of the stuff
10 that came out under political reality and political
11 will yesterday needs to be picked up and thought about
12 that. I think we need to factor in yesterday
13 afternoon's discussion and some more sensitivity.

14 So I don't think it's starting with a blank
15 sheet, but I think it's looking at what else is going
16 on in the world right now, and how, you know, how the
17 two secretaries when they get this report thinking
18 really through what they're going to need to do.

19 DR. BROMLEY: Yeah.

20 MR. NUSSMAN: Well, that would be more of -- I
21 unfortunately missed the political discussion
22 yesterday, but Mary's interpretation would be where I

1 think would be the next step.

2 DR. BROMLEY: Okay. Others? Who do we have?

3 We have Mary, Lauren?

4 MS. WENZEL: On the group, Eric, Bonnie, Mary,
5 John.

6 DR. BROMLEY: Bonnie. Bonnie says she didn't
7 volunteer.

8 MS. WENZEL: Okay. Sorry, Bonnie.

9 (Laughter.)

10 MS. WENZEL: Eric, Mary, John, Lelei?

11 DR. BROMLEY: Others who want to work on
12 implementation? All right. Let me see if I have --
13 did Bob want to be on implementation? No, Bob's on
14 something else. Whatever.

15 My sense here is that we have three tasks that
16 could be done: Clarify regional, elaborate it. Tell
17 us again why a national system is compelling, and
18 implementation. These are the three little groups I
19 think, right?

20 Is your hand up, Bonnie?

21 DR. McCAY: Yeah -- just -- and I'm not
22 volunteering, but just picking up on this issue of

1 recommendations that Max and others have emphasized
2 rightly, perhaps a group to do a little bit of
3 brainstorming about what kinds -- whether
4 recommendations can come out of this, you know, fairly
5 simple bulleted recommendations or not. It seems to be
6 a question that we're left with here, and I don't how
7 you would like to deal with it.

8 DR. BROMLEY: The way I'd like to deal with it
9 is to ask these three groups to sit down and do some
10 work and then once they've come back to us and we've
11 figured out how we might incorporate what they bring us
12 into the document somehow, that then the
13 recommendations thing be -- maybe we split back up into
14 small groups, everybody working on recommendations.

15 So I'd kind of like to hold the recommendation
16 thing off for a while so that it doesn't preclude
17 people who are involved in other little tasks. I think
18 we can deal with the recommendations thing maybe later
19 today. We do have some time tomorrow. I kind of want
20 to hold that off, because I think it might be very much
21 influenced by the careful work that these other three
22 groups are going to be doing right now.

1 Because in a sense, we're going to have an
2 implementation taskforce come back to us sometime, you
3 know, with some specific ideas. So that would be my
4 thought, Bonnie, if that's okay with people.

5 Other comments? What would you like to do?
6 There are some people who have not volunteered and I'm
7 loathe to sort of let them off the hook. So what are
8 the rest of you folks going to do while these three
9 rump groups are at work? I see Mark and I see Carol --
10 I'm sorry, Margaret. Mark?

11 DR. HIXON: I have interest in more than one
12 group, so --

13 DR. BROMLEY: You're interested in more than
14 one group.

15 DR. HIXON: SO when the groups break out, I
16 would ask that where they're meeting be made explicit
17 so people can go back and forth if they choose to.

18 DR. BROMLEY: That's right. That's great.

19 DR. HIXON: Thanks.

20 DR. BROMLEY: Is it Margaret?

21 MS. HAYES: Yes. Thank you, Mr. Chairman.

22 DR. BROMLEY: Could you get a little bit

1 closer to that black thing?

2 MS. HAYES: Let me re-introduce myself to the
3 group since I haven't been with you since your very
4 first meeting. I'm Maggie Hayes. I'm the director of
5 the Office of Oceans Affairs at the State Department,
6 and I do have some ideas for the international aspects
7 of the report.

8 I'd volunteer to be in a group, but I'm afraid
9 it would be a group of one.

10 DR. BROMLEY: Yeah. Thank you. We should
11 turn the page, because other issues, freedom of
12 navigation, international, involvement of MMS, NEPA.
13 Are there others who would like to work on
14 international issues? Eric. John Halsey, Mike
15 Cruickshank. Bonnie, is your hand up?

16 DR. McCAY: Yes.

17 DR. BROMLEY: Okay. There's a fourth group.
18 Eric, is your hand up? Do you want to speak or
19 volunteer?

20 MR. GILMAN: Just a quick comment.

21 DR. BROMLEY: Yes.

22 MR. GILMAN: In the -- I can't remember which

1 group is going to deal with the values of a national
2 system, but some of the goal statements could be
3 clarified to elaborate on your answer.

4 DR. BROMLEY: Yes. Okay. Thank you. May we
5 call you Maggie? Okay. Margaret. Okay. So, yeah,
6 the international. And that does connect with
7 navigation to a certain extent doesn't it? And
8 whatever.

9 Bonnie?

10 DR. McCAY: One more small issue that I would
11 just welcome somebody who would like to work on it with
12 me is our use of the term "customary knowledge" in
13 parallel with natural science and social science. And
14 I'm not sure that what we've crafted fits into how
15 other agencies and so forth would use the terms.

16 And I just would like to revisit that with
17 some people who helped -- you know, we've had a team
18 working on that. I think our definition is good in the
19 glossary, but I'm uneasy with the phrase "natural
20 science, social science and customary knowledge." So
21 if anybody else shares that, I would like to talk with
22 them.

1 DR. BROMLEY: Okay. So, Heidi, you've got
2 good notes on the volunteers for this last group,
3 right?

4 MS. RECKSIEK: I've got Eric, but I don't know
5 if Eric was really volunteering, or were you just
6 commenting? You are volunteering? Okay. Eric, John
7 Halsey, Bonnie and Max.

8 DR. BROMLEY: And I think Lelei has his hand
9 up, right Lelei?

10 MR. PEAU: For customary knowledge.

11 DR. BROMLEY: Oh, customary knowledge.

12 MS. RECKSIEK: Okay. I'm sorry. I was
13 talking about international.

14 DR. BROMLEY: Could everybody who wants to
15 work on this international thing please raise your
16 hand? Maggie, Dan Suman I don't think you have up
17 there. And is it Lisa? And Bob. All right.

18 MS. RECKSIEK: And customary knowledge.

19 DR. BROMLEY: Customary knowledge. Bonnie,
20 Lelei, Max. Is that right?

21 Now we should stop and take stock. Is anybody
22 not on a group? Steve?

1 MR. MOON: We have a classification group?

2 DR. BROMLEY: No, we don't have a
3 classification --

4 MS. RECKSIEK: I'm sorry. Classification is
5 Max, Jim Ray, George, Terry and --

6 DR. BROMLEY: I thought we weren't going to
7 have one of those.

8 MR. LAPOINTE: I'm sorry. I was not paying
9 attention, Mr. Chairman. The language in regard to
10 category, we have -- I gave to Lauren the
11 subcommittee's proposed changes, so we're done.

12 DR. BROMLEY: Oh really?

13 (Laughter.)

14 MR. LAPOINTE: Well, as I recall, you sent me
15 out of the room because you wanted it done, so we did
16 that and we came back, if that's all right.

17 DR. BROMLEY: Is that where you folks went?

18 MR. LAPOINTE: We were.

19 DR. BROMLEY: Oh, okay. That's been done.
20 And Lauren has the language. Yeah, Lauren said she
21 did, but I didn't believe it. All right.

22 So now, Heidi, what are we left with? Four

1 groups that have work to do?

2 MS. RECKSIEK: We have three, I believe. We
3 no longer have a classification group task. We have a
4 regional group, which was Mike, George, Tony, Rod, Bob
5 Zales and Gil. And we have international and customary
6 knowledge. We didn't make a group --

7 VARIOUS PARTICIPANTS: Implementation.

8 MS. RECKSIEK: Implementation. I'm sorry.
9 That's the fourth group. Eric, Mary, John, Mike.

10 DR. BROMLEY: So we don't have a group to
11 tighten down the language of the value of a national
12 system?

13 DR. FUJITA: No. I'd like to volunteer for
14 that one.

15 DR. BROMLEY: Yeah. Rod, Mark, Terry.

16 MR. RADONSKI: And is that part of the
17 introduction?

18 PARTICIPANT: That's the introduction.

19 DR. BROMLEY: That's kind of the introduction
20 is to elaborate and give some traction there. John
21 Ogden, Bob Bendick, Jim Ray, Steve Murray.

22 All right. Now, Heidi, can you --

1 MS. RECKSIEK: Rod, Terry --

2 DR. BROMLEY: Mark Hixon. Okay. Wonderful.
3 Heidi, could I ask you to do one new flip chart back up
4 front here, which is without names but just the groups
5 that we've created? Could you start with a new sheet?

6 What are the groups we've created? The why
7 question. Okay. That's the introduction. That's to
8 give it a little more force. Why a national system,
9 the introduction.

10 Regional issues. Implementation.
11 International and I think customary knowledge. Is that
12 right? Rod?

13 MR. FUJITA: I'm just wondering, Mr. Chairman,
14 should the why group tackle the issue of providing
15 context for a recommendation? You know, what else is
16 going in the world, or is that implementation?

17 DR. BROMLEY: It could be both. It could be
18 both. It could be both.

19 MR. FUJITA: It could use some context.

20 DR. BROMLEY: Okay. These are the five. Does
21 that look right? Is everybody affiliated with one or
22 the other? Are there any free riders hanging out and

1 hiding from view? Mike?

2 DR. CRUICKSHANK: I find myself on two, Mr.
3 Chairman.

4 DR. BROMLEY: You're on two?

5 DR. CRUICKSHANK: Should I take off one?

6 DR. BROMLEY: Well, that's a good question.
7 You may not be the only one. Eric, was your hand up?

8 MR. GILMAN: I just wanted to make a comment
9 about your structure of five groups and suggest that
10 you could make them into three. Again, my comment
11 about international is that that could be clarified in
12 the goals explaining how the values of the system would
13 incorporate international aspects, boundary sites.

14 And the comment is that the second group,
15 regional, is, the way I'm interpreting it could be part
16 of the implementation group and that we would better
17 define the current one sentence fragment in the
18 document which describes how the regional structures
19 would establish the management system. That's
20 basically a part of the process and part of the
21 implementation.

22 DR. BROMLEY: Good. Okay. We have one or two

1 people who are not on any group perhaps. Is that true?

2 We won't worry about those. But we do have to worry
3 about people who are on more than one. And let's just
4 let you work that out.

5 Okay. Now the problem is, what are you going
6 to do and when must you come back here with a work
7 product? I would be dismayed if you come back with
8 more than ten sentences. And I'm being totally
9 arbitrary here, right? But, look, we are not setting
10 up new subcommittees that are going to work and work
11 and work and come back in May and work some more and,
12 you know, conference phone calls and e-mails. This is
13 not what we're doing. Is that right?

14 MR. FUJITA: That's correct.

15 DR. BROMLEY: Aren't we looking for stuff? We
16 are not looking for bullets. I have dealt with more
17 bullets over the last month and a half than I ever want
18 to deal with. Please don't come back with bullets.

19 (Laughter.)

20 DR. BROMLEY: Try sentences, okay? That's my
21 hope. We already have a lot of bullets in here, and I
22 don't want any more bullets, not even silver ones.

1 DR. McCAY: Should these be sentences --

2 DR. BROMLEY: Yeah. I guess it would be
3 wonderful if you could come back with sentences that
4 would replace or augment sentences that are here and
5 that you could tell us exactly where they're going to
6 fit in.

7 And I'd like you not, if we could at this
8 level, let's resist words. Let's deal with sentences.

9 Rod?

10 MR. FUJITA: Mr. Chairman, should we attempt
11 to revise the synthesis document kind of in strike-out
12 mode so that --

13 DR. BROMLEY: You could strike stuff out,
14 yeah, guess so, right? I mean, you could say this
15 sentence doesn't do anything or it confuses issues.

16 MR. FUJITA: So if a Word document, the
17 synthesis could be e-mailed, then we could use that as
18 a basis?

19 DR. BROMLEY: Yeah. Yeah. We can do that
20 later. But at this point, you know what I guess I'd
21 like to have you do is quick, tight sentences that
22 replace or augment what's here. Is that possible?

1 MS. WENZEL: Yes.

2 DR. BROMLEY: And how much time would you like
3 to do this? It's 10:30. Do you want to try to come
4 back by twelve, just before lunch? Is that possible?
5 See what happens, okay.

6 And what's the lunch program? Is it like
7 yesterday? We get our lunch and come back in here and
8 work?

9 MS. WENZEL: Yeah. Actually I think there's
10 tables set for lunch today.

11 DR. BROMLEY: Tables set for lunch. Okay. So
12 it's possible. Why don't we come back at ten till
13 twelve and ask -- you groups will identify your chair
14 or whatever and why don't we come back here let's say
15 at quarter to twelve? Okay. We'll have 15 minutes.

16 And the groups can not tell us the specific
17 language that they have, but they could tell us in a
18 sense what sort of progress they have made. Do they
19 want more time. If they want more time, they can
20 colonize a table and continue working over lunch.

21 What do you think of that? Jim?

22 DR. RAY: I think that's fine. I'd like to

1 recommend we start with 15-minute official break before
2 we go into our group.

3 DR. BROMLEY: Oh yeah. That's up to you.
4 We're about through here. You folks -- we do need to
5 tell you where to go. Bob?

6 MR. ZALES: Is the executive committee still
7 meeting at lunch today or not?

8 DR. BROMLEY: No. How many breakout rooms do
9 we have, do you know?

10 MS. WENZEL: Not knowing how this was going to
11 flow, one official breakout room. So that means we can
12 just kind of make use of this room and the hall.

13 DR. BROMLEY: We don't have an official
14 breakout room?

15 MS. WENZEL: We have one.

16 DR. BROMLEY: One.

17 MS. WENZEL: We have one. It's the Mount
18 Vernon room upstairs.

19 DR. BROMLEY: Okay. So one group can go to
20 the Mount Vernon room.

21 Who would like to go there?

22 MS. WENZEL: The value -- the why group is the

1 biggest.

2 DR. BROMLEY: The why group is the biggest.
3 Okay. That group would go to the Mount Vernon room and
4 the other four will colonize the four corners of this
5 place. And you have basically an hour and if Jim gets
6 his way, 15 minutes for -- what are you going to do,
7 Jim? Anyway, have an hour.

8 MS. WENZEL: I just wanted to make one
9 announcement. I do have the copies of Tony McDonald's
10 comments from yesterday, the Coastal States
11 Organization, so I'll hand this around. But if I don't
12 get to you and you need to leave, come up and get one.

13 I have one copy of the FY06 NOAA budget for
14 folks to look at. I'll just leave it up here. And we
15 have about 10 copies of the U.S. Ocean Action Plan, so
16 the groups can share those.

17 DR. BROMLEY: I have an idea for those who
18 aren't on a committee. You can read the NOAA budget
19 submission.

20 (Laughter.)

21 DR. BROMLEY: That'll make you join a group.

22 (Whereupon, at 10:33, the meeting recessed for

1 breakout group discussion.)

2

1 ideas that come out of here, so I'm reluctant to start
2 here, working our way down, because it may be that we
3 want to sort of save this for last. But I'm open to
4 suggestions as to how you think we might best proceed.

5 MS. WENZEL: George's is simple and would be
6 one to knock out just to start with.

7 DR. BROMLEY: George is simple?

8 MR. LAPOINTE: And I'm comfortable with that,
9 so that's good.

10 (Laughter.)

11 DR. BROMLEY: Good. Okay. You think we can
12 deal with his easily?

13 MS. WENZEL: Yes.

14 MR. LAPOINTE: I think we can deal with
15 categories pretty easily.

16 DR. BROMLEY: Okay. Let's do that.

17 MR. LAPOINTE: Regional a little less so, but
18 I'm willing to dive into both.

19 DR. BROMLEY: Okay. Let's do that. Do you
20 have it for him?

21 MR. LAPOINTE: What I did was, the current
22 language in our synthesis document is listed on the

1 top, and it says enhance multiple conservation
2 objectives by implementing three broad categories of
3 MPA. And then it had the three categories.

4 And, Lauren, if you could just scoot down a
5 little bit. The language I used, trying to pay
6 attention to what people had said was enhance
7 conservation by implementing MPAs that combine one or
8 more of the following categories or values of MPA as
9 appropriate, and then listed the three categories.

10 So it's quite a simple change. I did not get
11 into the discussion Eric had about whether we leave it
12 here or not. This was just to clarify our intent at
13 this point.

14 DR. BROMLEY: Okay. That's wonderful. Could
15 I call your attention to two words? Categories, we
16 still have the word "categories" in here and "values."

17 And can I just ask whether we want to think about
18 purpose? Do we want to think about enhanced
19 conservation by implementing MPAs that combine one or
20 more activities or something? I mean, is "purposes"
21 better than "values" or not?

22 MR. LAPOINTE: I actually like that

1 suggestion, Mr. Chairman. I like it.

2 DR. BROMLEY: Something, okay.

3 MR. LAPOINTE: Other members?

4 DR. BROMLEY: Values are things we can fight
5 about. Purposes are things we can sort of negotiate
6 and agree. This is the purpose or this is the
7 objective and this is the goal. So that's all I mean
8 by that.

9 MR. PETERSON: You could probably strike
10 categories or values and then the single word purpose,
11 okay.

12 DR. BROMLEY: Lauren, are you with us?

13 MS. WENZEL: Okay. Yes.

14 DR. BROMLEY: So we want to get rid of one or
15 more of the following. Is that what you want.

16 MS. WENZEL: Keep going.

17 DR. BROMLEY: Get rid of MPA. Are we getting
18 close? Enhance conservation. We don't say what that
19 is, but we can leave that aside. By implementing MPAs.
20 What does implementing mean? Creating. You know, you
21 might say, come on, Dan, you're picking on words, but
22 do we all know what we mean by implementing?

1 MR. LAPOINTE: Yeah.

2 DR. BROMLEY: Enhance conservation by
3 implementing MPAs that combine -- take out "can."

4 MR. LAPOINTE: Yep.

5 DR. BROMLEY: That combine one or more of the
6 follow purposes. Take out as appropriate. Tony?

7 MR. CHATWIN: Is it correct to say combine
8 one?

9 MS. WENZEL: That address one?

10 DR. BROMLEY: That address, focus on.
11 Include.

12 MR. LAPOINTE: I'm glad I wasn't in college
13 with you guys. Now somebody said "address" is better
14 than "include", "addresses" rather than "includes."

15 DR. BROMLEY: Yeah. That addresses. Back up,
16 get rid of includes. MPAs that address one or more of
17 the -- address -- is that -- are we okay with address?

18 MS. WENZEL: Do addresses with the es in
19 parentheses.

20 DR. BROMLEY: Enhance conservation by
21 implementing MPAs that address one or more of the
22 following purposes as appropriate?

1 MR. LAPOINTE: No, not as appropriate.

2 DR. BROMLEY: Get out as appropriate, right?

3 MR. LAPOINTE: You guys are tough.

4 DR. BROMLEY: Bonnie, you don't like it?

5 DR. McCAY: Well, is natural heritage a
6 purpose? Natural heritage --

7 DR. BROMLEY: Conserving natural heritage
8 sites.

9 DR. McCAY: Conserving natural heritage,
10 protecting cultural heritage, ensuring sustainable
11 production. When you talk about purpose, you're kind
12 of calling for that sort of language. I'm not
13 advocating it grammatically.

14 MR. LAPOINTE: I mean, I can easily put
15 natural heritage and sustainable production under
16 conservation. But, I mean, the cultural heritage
17 stuff, are we conserving cultural heritage?

18 DR. BROMLEY: Okay. Terry, then Rod.

19 MR. O'HALLORAN: What if you just left out
20 "purposes?" Just address one or more of the following?

21 DR. McCAY: Good. Good. That takes care of
22 it.

1 DR. BROMLEY: Something like that.

2 MR. FUJITA: I was going to suggest values, as
3 I did this morning. Those are values, right? Natural
4 heritage, cultural heritage.

5 DR. BROMLEY: Well.

6 DR. GARZA: That looks good.

7 DR. BROMLEY: Is your hand up, Wally? Do you
8 like what's here? Are we okay for now? We can always
9 come back. Okay, we can come back.

10 MR. LAPOINTE: I'll try to think of one word
11 so we make it really succinct rather than more, but.

12 DR. BROMLEY: So is that okay for now? Can we
13 live with that and move forward a bit?

14 MS. WENZEL: Yes.

15 DR. BROMLEY: Okay. So that takes care of --
16 what does that take care of? Categories? Okay.

17 DR. CHATWIN: I think raising the issue of
18 implementing was a good thing.

19 DR. BROMLEY: Raise what?

20 DR. CHATWIN: The issue of implementing, what
21 that means, because it does have a connotation that an
22 MPA doesn't exist and we're going to implement one.

1 DR. BROMLEY: Yeah.

2 DR. CHATWIN: And so I think we do need to
3 talk about that a little bit more.

4 DR. BROMLEY: Lauren, can you get it back up?

5 MS. WENZEL: Oh, the same one?

6 DR. CHATWIN: And maybe what would be helpful
7 is where in the text is that going to go?

8 MR. LAPOINTE: Where in the text is the whole
9 statement going to go?

10 DR. CHATWIN: Is that piece, yeah.

11 MR. LAPOINTE: It's going to go in your
12 synthesis document starting on line 55.

13 DR. BROMLEY: Again, are we -- what is
14 implementation? We know we have to talk about
15 implementation for our report, but what is implementing
16 her?

17 DR. McCAY: Well, in the context of our
18 charter, it's more identifying and supporting MPAs that
19 address one or more of the following.

20 MR. LAPOINTE: But the goal of the national
21 system, and right now this is right at the header, is
22 to implement a national system of MPAs to address those

1 following concerns. And so --

2 DR. McCAY: So it should be implementing a
3 national system of MPAs?

4 DR. BROMLEY: No. He's saying it's already in
5 a discussion of --

6 MR. LAPOINTE: I'm saying it's already in
7 there.

8 MR. BENDICK: Just get rid of "implementing"
9 and put "inclusion". Enhance conservation by inclusion
10 of MPAs. Because we're talking about bringing them
11 into a national system, right?

12 DR. BROMLEY: Yeah. By inclusion of MPAs.
13 Incorporation?

14 VARIOUS PARTICIPANTS: Including.

15 DR. BROMLEY: Okay. By including MPAs we
16 address one or more of the following. Is that it?
17 Okay. Can you live with this for the short run? Okay.

18 Now who wants to subject themselves --

19 PARTICIPANT: Go to regional again. George is
20 on a roll.

21 DR. BROMLEY: Regional? You want to do
22 regional?

1 MR. LAPOINTE: Regional definition or
2 something. It's on --

3 MS. WENZEL: It's just called regional?

4 MR. LAPOINTE: I don't think -- we struggled,
5 and I'll read it for people, and divided regions into
6 what we call big R's and little r's. The goals of the
7 region must be based on --

8 DR. BROMLEY: The goals of the system must be
9 based on.

10 MR. LAPOINTE: Of the system. I'm sorry.
11 Must be based on biophysical, biogeographic or cultural
12 regional boundaries, and implementation of the system
13 will be done along existing administrative boundaries.

14 I don't know quite where to put it in the
15 document yet, but the distinction between what we call
16 the big R for regional, and that's whoever's boundaries
17 we use. Pick your agency, I don't care.

18 DR. BROMLEY: Take that word out of there?
19 The little r word? What's wrong with biophysical,
20 biogeographic or cultural boundaries?

21 MR. LAPOINTE: That works for me.

22 DR. BROMLEY: Let's use regional to mean one

1 thing, not two things. Goals the system must be based.
2 Should be based? Must be based? Do you care? The
3 goals the system must be based on biophysical,
4 biogeographic or cultural boundaries. Why do we need
5 the little r?

6 MR. RADONSKI: Because they're designating
7 them as little r as opposed to big R.

8 (Laughter.)

9 DR. BROMLEY: I can see this footnote.

10 MR. RADONSKI: We have to do a little more
11 with that aspect. But we're saying there's going to be
12 a large administrative region, big R. And we don't
13 know which one it's going to be, if it's going to be
14 Fish and Wildlife Service, whatever. Whatever controls
15 that.

16 But that entity, the big R, must take into
17 consideration the second paragraph, the challenge to
18 fulfillment of goals lies in effective coordination
19 among administrative jurisdictions that overlap
20 biophysical, biogeographic or cultural regional
21 boundaries.

22 DR. BROMLEY: I think you guys have more work

1 to do. I'm sorry. George?

2 MR. LAPOINTE: I will guarantee we have more
3 work to do. And we put the big R and little r in there
4 because it helped us think about it. And in looking
5 through the way regional was used in the document,
6 there was these two distinctions, and that's what we're
7 trying to get at.

8 DR. BROMLEY: I know.

9 MR. LAPOINTE: Our struggle -- you can either
10 leave in or take out the letters, and we'll take them
11 out in the end. I'm still struggling with, and I
12 welcome people's ideas, about how to place it within
13 the document so that it makes a difference. That's
14 what we have not done, Mr. Chairman.

15 DR. BROMLEY: Well, I just heard mention of an
16 agency and then I heard region. And I tend to think of
17 agencies of course as having regional things, but I
18 don't think of agencies as regions, big r's or little
19 R's, okay?

20 So, could you get rid of -- I mean, could we
21 be talking about biophysical, geographic and cultural
22 areas? Geographic extents or something? Okay. To get

1 rid of that r word. And then along existing
2 administrative boundaries, which is a governmental
3 thing, and then there's a spatial dimension to regions
4 like the North Atlantic or the North Pacific or
5 something else.

6 So that's what I'm struggling with here. What
7 do you guys mean by a region?

8 MR. RADONSKI: A region is fixed boundaries of
9 various agencies.

10 DR. BROMLEY: Okay. Administrative
11 boundaries.

12 MR. RADONSKI: Yes.

13 DR. BROMLEY: Then maybe we want to call them
14 that.

15 MR. RADONSKI: Okay.

16 DR. BROMLEY: Mike can tell you.

17 DR. CHATWIN: The second paragraph, at the end
18 there, just remove that regional, and it reads pretty
19 smooth.

20 DR. BROMLEY: You mean get rid of this thing?

21 DR. CHATWIN: Yeah.

22 DR. BROMLEY: Okay. Tony, go ahead.

1 DR. CHATWIN: If I understand you correctly,
2 you are struggling with the fact that there are
3 multiple regions.

4 DR. BROMLEY: Well --

5 DR. CHATWIN: And what we were trying to do
6 was to acknowledge that in fact there are multiple
7 regions. Biophysical is one category, and, I mean,
8 biogeographic, biophysical, cultural, that's one. And
9 the other one is that there are administrative regions.

10 DR. BROMLEY: Wonderful. Wonderful.

11 DR. CHATWIN: That's all we're trying to say
12 here.

13 DR. BROMLEY: I know. But I'm looking at this
14 now as a skeptical reader, and I'm confused about what
15 you guys mean by regions.

16 MR. RADONSKI: We're telling you what the
17 concept is. We're welcome to language that says it
18 better.

19 DR. BROMLEY: All right. Okay. Max?

20 MR. PETERSON: I have problems with saying
21 we're going to implement three existing administrative
22 boundaries, because existing administrative boundaries

1 out there, at least federal agency boundaries, are
2 based on land. Land. We're talking about a marine
3 system here.

4 So the administrative boundaries that are
5 established for MPAs if we ever get a national system
6 may be quite different than existing administrative
7 boundaries.

8 So I think I'd take out the word "existing"
9 along administrative boundaries. And they may be
10 established for -- they may be existing and they may be
11 new.

12 DR. BROMLEY: Okay. That's fine. All I'm
13 saying is let's be clear about administration and
14 geographic.

15 MR. PETERSON: Right. And I agree with that.
16 I would take out the word "existing."

17 MR. LAPOINTE: Don't do that yet. I want to
18 respond.

19 DR. BROMLEY: Okay. Mary wants to get in and
20 George wants to get in. Mary, we'll give you first
21 crack.

22 MS. GLACKIN: Well, I see what the group

1 struggled with, and it was kind of a tangential issue
2 in implementation too. But it's this aspect of who's
3 got the authorities to do something versus how you
4 might want to define an MPA to span different, you
5 know, the ecological factors and all. And I think that
6 is a valid concern that we have to come together with.

7 And when we show you implementation, you know,
8 one of the things we kind of focused in on but didn't
9 solve at all, is currently our report is referring to
10 regional entities. And that was I think what we came
11 up with Hawaii, not knowing where we were going with
12 the Ocean Policy Commission Report.

13 But, you know, I think the concept that we
14 have been on, and we'll comment more in the
15 implementation section, is that these regional entities
16 come together and say for the good of this regional
17 ecosystem, which spans, you know, multiple boundaries,
18 we need an MPA or we want an MPA to do this.

19 But, you know, I'm having a lot of trouble
20 with this language, too. I see where you're trying to
21 go, and it's not easy to do it. But I think it's wrong
22 to make the boundaries be the difference. I think one

1 thing is authorities.

2 DR. BROMLEY: Yes.

3 MS. GLACKIN: And then the other thing is --

4 DR. BROMLEY: The scope over which --

5 MS. GLACKIN: The geography of the earth and
6 what we want to protect.

7 DR. BROMLEY: I've got Bob and then you.

8 MR. LAPOINTE: Two points. One is to Max's
9 statement. Max, there's lines on the water that with
10 administrative authorities, to use Mary's word, that
11 are as significant as lines on land, and we've got
12 plenty of those already.

13 But actually I like the change from boundaries
14 to authorities, because it does make a difference. And
15 talking about this. And one of the reasons I used
16 existing administrative -- my word -- administrative
17 boundaries, administrative authorities, was I remember
18 in one of my reads of our summary document that in fact
19 in the implementation part, we talked about using the
20 existing structures rather than trying to build new
21 ones. That was the idea I was trying to embody in
22 that.

1 DR. BROMLEY: Could we say systems will be
2 done -- I don't like "done," but along -- get rid of
3 existing. But existing authority. Existing or new
4 authorities or authority structures or something.

5 MR. LAPOINTE: And again, the reason I put
6 existing in there was, in the summary document, I seem
7 to recall a discussion from one of the other
8 subcommittees saying that we wanted to try to use what
9 we had and not build new ones.

10 And so that was what I was -- that's the
11 reason it says existing.

12 DR. BROMLEY: I have Bob, I have Gil. And if
13 we go on very much longer, I'm going to ask this group
14 to go back to another room and work a little more. So
15 Bob and Gil and then Eric.

16 MR. ZALES: I think this goes a little bit
17 further because at some point when you start talking
18 about creating a new MPA, you're going to have to have
19 some type, according to what we've identified in here,
20 in adding new sites and goals and objectives, you're
21 going to have some kind of social and economic
22 assessment.

1 And so that assessment will be indifferent to
2 the area that it's in. So whatever boundary, obviously
3 an assessment for something in the Gulf of Mexico, if
4 you take it in a national perspective, it's not going
5 to be very great. But in the Gulf of Mexico, it would
6 be greater.

7 So you're going to have to identify those
8 particular things too for those type of concerns.

9 DR. BROMLEY: Gil?

10 MR. RADONSKI: The reason we came up with that
11 first paragraph is because we're talking to two
12 secretaries, and they have at their option several
13 administrative authorities to make this happen. So we
14 weren't choosing for them but acknowledging that there
15 was a variety.

16 But we're saying to them, whichever one you
17 choose must take the ecomanagement type position that
18 the second paragraph lays out.

19 DR. BROMLEY: Okay. Gil, and then Mike and
20 Mary. Oh my goodness. I'll leave it up to you folks.

21 I don't want to stand up here all day and wordsmith,
22 but we'll do it as long as it makes progress.

1 Otherwise, we can send the group away without penalty
2 and without prejudice and ask you to do some more work.

3 What's your preference?

4 MR. LAPOINTE: Tell us what the penalty is if
5 we don't --

6 DR. BROMLEY: Just eternal damnation. It's
7 nothing serious.

8 (Laughter.)

9 DR. BROMLEY: Okay. Max?

10 MR. PETERSON: I'd like to put existing
11 federal, state, tribal or local administrative
12 authority, because we're not just talking about a
13 single list of authorities.

14 DR. BROMLEY: Okay. Harry, Mike. I do want
15 to stop this pretty soon. We had a bunch of hands over
16 there. I'm sorry. Mike?

17 DR. CRUICKSHANK: Instead of existing
18 administrative authorities, what about "appropriate?"
19 That covers everything.

20 DR. BROMLEY: Everything that's appropriate,
21 yes. Okay. Eric?

22 MR. GILMAN: I think if you run through each

1 of the groups' report back to the group and then get to
2 the details of wordsmithing, you might find it more
3 efficient, because there was a lot of overlap between
4 the groups.

5 DR. BROMLEY: Mary?

6 MS. GLACKIN: I'll pass.

7 DR. BROMLEY: Okay. Can the group reconvene,
8 George, work on this a bit more?

9 MR. GILMAN: Again, I'd suggest that they
10 listen to some of the other --

11 DR. BROMLEY: I can't hear you, Eric. That's
12 my problem.

13 MR. GILMAN: Again, I'll emphasize that if you
14 listen to all the other groups report back, you may
15 find that they don't need to go back again.

16 DR. BROMLEY: Okay. Thank you. I didn't hear
17 you the first time. Thank you. All right. Let's do
18 that. We'll ask this one to get back to us.

19 Who wants to go next? Bonnie?

20 DR. McCAY: Sure. I don't have very much.

21 DR. BROMLEY: So now we're going to hear from
22 customary knowledge. And you can certainly use the

1 microphone, Bonnie, or something if it's possible.

2 DR. McCAY: So we were a bit uncomfortable
3 with the phrase "customary knowledge" as not
4 encompassing all that was intended, particularly
5 leaving out the important knowledge that people get by
6 participating in various activities in the marine
7 environment, which may not be customary, it maybe what
8 they get just from having been there and seen what's
9 going on.

10 And also, some people react to the term
11 "customary" in a negative way. So we felt it needed to
12 changed a bit. And so this is our proposal that we use
13 the phrase "experienced-based knowledge" as the more
14 generic term, and "customary" would be something within
15 that.

16 And so one of the changes is indicated here at
17 the top, create effective and lasting protection, et
18 cetera. All of this is already in the document until
19 we get to the last line. The natural sciences, the
20 social sciences and experienced-based knowledge
21 including customary knowledge. Then if we did that, we
22 would have to make some changes in the glossary, and

1 those are suggested.

2 The glossary for customary knowledge, here we
3 made some changes that end up with this phrase,
4 experience-based knowledge based upon tribal,
5 indigenous, traditional and/or local ways of knowing.

6 We deleted a phrase that included traditional
7 ecological knowledge, and we inserted the term
8 indigenous as well as the concept of experienced-based
9 knowledge. Having done that of course, we then had to
10 describe experienced-based knowledge for the skeptics
11 and the uninformed.

12 (Laughter.)

13 DR. BROMLEY: Who's left?

14 (Laughter.)

15 DR. McCAY: So this is an attempt at a
16 definition. This has not been vetted. Knowledge based
17 upon ways of knowing other than scientific research.
18 It includes knowledge based on personal and collective
19 experience as well as tradition.

20 Then there's another part of the document
21 where this comes up. We may not have captured all the
22 spots, but we did this one. We talked about

1 participatory research, and we had to revise that, not
2 just because of these changes, but because it didn't
3 work anyway. And so this is the result of it.

4 Participatory research which may benefit from
5 tribal, indigenous, traditional and other experienced-
6 based knowledge as well as from active collaboration in
7 scientific work is as important as research in the
8 natural and social sciences.

9 So that's the major thrust of our work. And
10 then we also though talked about the introductory
11 definitional question and considered the importance of
12 certainly for a larger buy-in of taking -- giving some
13 examples that would include examples of existing
14 systems that might -- you know, including traditional
15 systems as examples of MPAs.

16 So what we would propose is something to this
17 effect. That we cite the executive order, as is done
18 here, defining a marine protected area, and a statement
19 such as the glossary and the text that follows explains
20 this further, because then there is all the work that
21 Subcommittee 1 did on explaining what protection,
22 lasting protection and so on and so forth.

1 But here we would just -- we would want early
2 in the introduction to say something pointing out that
3 the range is very, very, very broad, and that it could
4 include -- and here, you know, I've given some
5 examples, but this was done very, very quickly and was
6 not vetted fully, but examples, it could -- for
7 example, traditional marine tenure systems in tribal
8 territories, or areas where fishing or boating is
9 regulated or restricted.

10 Specially managed areas of towns or villages
11 as well as more formally designated local, state,
12 federal or international areas with greater or lesser
13 restrictions on human activity.

14 Now there may already be better language to
15 that effect, and I don't know if the center has already
16 done that in public outreach documents. Charlie, you
17 may have something. But it seemed to me that we needed
18 to give some examples that did indicate how broad the
19 range might be of marine protected areas.

20 DR. BROMLEY: Okay. That's a lot of text for
21 people to absorb, so the message here, George -- George
22 is gone, but if you'd written three paragraphs, we

1 would have been easier on you. You came in with one
2 short paragraph so we could butcher it.

3 The point is, do people feel comfortable
4 enough with this for now? To let them put it in and
5 see how it reads, or do you want to wordsmith a bit?
6 Tony?

7 DR. CHATWIN: It's not necessarily wordsmith,
8 but I just wondered if the group thought about the
9 implications of going and defining certain types of
10 MPAs and how that aligns or does not align with the
11 lasting protection.

12 DR. McCAY: I mean, that is a real issue, and
13 I don't know.

14 DR. CHATWIN: Because to me, my first read of
15 this is that that leaves it very ambivalent.

16 DR. BROMLEY: Regarding what?

17 DR. CHATWIN: Ambivalent?

18 DR. BROMLEY: Yeah. Vague?

19 DR. CHATWIN: Well, yeah. Open to
20 interpretation. We can choose one or the other.

21 DR. McCAY: Sure.

22 DR. CHATWIN: So what is it going to be? And

1 I think part of our mission is to be as clear as
2 possible.

3 DR. McCAY: Well, yes, and I recognize that.
4 And if there was some way to do that and still get up
5 there, up front, some examples, I would like to see
6 that.

7 Max?

8 DR. BROMLEY: Max.

9 MR. PETERSON: I'm a little concerned about
10 this catch-all area where fishing and boating is
11 regulated or restricted. We got lots of places where
12 boating or fishing is regulated or restricted for a lot
13 of purposes, safety and other things.

14 And I'm not sure that that's a category --
15 that would be so broad if we really pick up all those,
16 I'm a little concerned about it.

17 DR. McCAY: Right. I agree, Max. That needs
18 to be fixed. The "may fit" is really critical, and
19 something needs to be strengthened there.

20 MR. PETERSON: Yeah. Yeah.

21 DR. McCAY: The point is to kind of just give
22 somebody a general idea of the kinds of places that may

1 or may not be considered as marine protected areas.

2 MR. PETERSON: We're trying to enhance the
3 conservation of an area.

4 DR. McCAY: Right.

5 MR. PETERSON: And if it's already been
6 handled by fishing or boating restrictions, it's not
7 clear what we're adding. Anyway, it's a thought. Go
8 ahead and leave it if you want to. It's just a
9 thought.

10 DR. McCAY: No, no. I don't -- I mean, we
11 need to change this. I just did this really quickly.

12

13 MR. PETERSON: I'm just concerned that that
14 would add -- nationally, that would add hundreds and
15 hundreds of areas that are restricted because of safety
16 or incompatible use. The whole boundary waters clean
17 area for example has restricted boating, there's lots
18 and lots of restricted boating or fishing by states or
19 others.

20 DR. BROMLEY: What I see, I see two things
21 going in in your group, Bonnie. I see that you folks
22 wanted to offer clarity about traditional knowledge or

1 experienced-based knowledge and you weren't happy with
2 customary knowledge, and that sort of narrows your
3 definitional task that you set yourself.

4 But now all of a sudden, by way of giving
5 examples, you've created troubles. So in a sense, do
6 you think you could pull back from this sort of thing
7 and give us clarity about a better way to talk about
8 experienced-based knowledge and kind of leave it at
9 that for now?

10 DR. McCAY: Be happy to leave it that way for
11 now. It's your call.

12 DR. BROMLEY: Because now we're kind of
13 opening up more stuff.

14 DR. McCAY: I just want to leave it, though,
15 on the table that we need something up front in the
16 introduction that does this. And if we're not ready
17 for that, that's fine.

18 DR. BROMLEY: And maybe with another half an
19 hour's worth of work, you can come back. You don't
20 have to. But, I mean --

21 DR. McCAY: I don't know that we can do that.
22 But I think it needs to be done.

1 DR. BROMLEY: It's up to you. If you want to
2 push this point, then maybe a little more work is
3 required. But I think people are happy with the
4 clarification that gave to experienced-based knowledge.

5 It's the elaboration of it. Is that fair enough?
6 People didn't have much trouble with that. But it's
7 this other --

8 Dolly, and then Michael.

9 DR. GARZA: I do apologize, Mr. Chair, but I
10 just kind of hit meltdown today and didn't go to any
11 committees. But if you work in the native field, which
12 I do, the definition that we always, always, always use
13 is TEK.

14 And if we want to include experiential and
15 other types of local knowledge, I would be glad to say
16 TEK and -- and -- experiential knowledge. But I don't
17 like the idea of saying experiential knowledge
18 including TEK, because the two are entirely different.

19 DR. BROMLEY: TEK meaning traditional
20 ecological knowledge?

21 DR. GARZA: Yes.

22 DR. BROMLEY: Yeah. Okay. I think it's

1 important that we use language that people can relate
2 to as long as it speaks to others who don't --

3 DR. McCAY: We can fix that.

4 DR. BROMLEY: So I think what I'd like to ask,
5 Bonnie, is that you rope Dolly and then you guys go
6 back and work a little more.

7 DR. McCAY: Sure.

8 DR. BROMLEY: Is that all right?

9 DR. GARZA: Yeah.

10 DR. BROMLEY: Okay. So, customary knowledge
11 still is a work in progress.

12 International? Margaret.

13 MS. HAYES: Okay. We have just a few words to
14 add here and there and some deletions. I think the net
15 effect of our suggestions would be actually to make the
16 document a little bit shorter.

17 DR. BROMLEY: Could you get a bit closer to
18 the mike?

19 MS. HAYES: Okay. Can you hear me now?

20 DR. BROMLEY: Yeah, that's much better.

21 MS. HAYES: Okay. Our first suggestion is on
22 page 1.

1 DR. BROMLEY: Where is this --

2 MS. HAYES: The introductory paragraph.

3 DR. BROMLEY: There are no lines on this
4 document, are there, line numbers?

5 MS. WENZEL: Yeah. They come off in this
6 format.

7 DR. BROMLEY: Okay.

8 MS. HAYES: All right. This is a very small
9 change in the last line of the introduction to talk
10 about those with an interest in the marine environment.

11 DR. BROMLEY: In THE marine environment.

12 MS. HAYES: Because we think that, you know,
13 Americans' interest doesn't necessarily end at the
14 Canadian border, for example.

15 DR. BROMLEY: Okay. Thanks. Page 2 is it?

16 MS. HAYES: Yes. On page 2, the fifth goal.
17 We really had some difficulty with the way this goal
18 was stated both in the use of the verb "recognize,"
19 that didn't seem strong enough, and also that the last
20 part of the goal that talked about being compatible
21 with international commitments and so on didn't seem to
22 make much sense and wasn't really tied explicitly to

1 anything in the rest of the document.

2 So our suggestion for this is to say take
3 advantage of opportunities for regional and
4 international cooperation.

5 DR. BROMLEY: Who could be opposed to that?

6 MS. HAYES: And then going along with that, we
7 would insert the word international in the
8 parenthetical, because of course there are
9 international managed -- ocean management frameworks
10 such as regional fishery management organizations and
11 the International Maritime Organization, for instance.

12 DR. BROMLEY: Good. Okay.

13 MS. WENZEL: Margaret, what is the next page?

14 MS. HAYES: The next page is page 5. These
15 are the factors.

16 DR. BROMLEY: That's page 4. So you want --
17 is this a deletion here, Margaret?

18 MS. HAYES: Let's see. In that sentence,
19 because this is information that's supposed to be given
20 for nominating sites for inclusion in the national
21 system, we thought this would be clearer if we just
22 said a determination whether and perhaps we would want

1 to know why the site should be part of the national
2 system.

3 DR. BROMLEY: Okay.

4 MS. HAYES: All right?

5 DR. BROMLEY: Determination whether and why.

6 MS. HAYES: You may wonder why we were
7 thinking about that. We were talking about perhaps
8 saying something about trans boundary MPAs at that
9 place, but then notice that really the whole idea was a
10 little bit off the mark.

11 DR. BROMLEY: That's good. What I'd like to
12 ask is that you or your group work on that sentence. I
13 don't like the and why stuck in the middle, okay?

14 MS. HAYES: Well, I think that's for group
15 discussion of whether you think that someone who is
16 proposing an MPA for inclusion in the system should
17 explain why --

18 DR. BROMLEY: Oh, precisely.

19 MS. HAYES: -- they think it ought to be.

20 DR. BROMLEY: Give me good reasons why, okay?

21 If there's a way to word it so that it doesn't have
22 that thing stuck in the middle.

1 I think the problem is we start out with a
2 determination, you know. All I ask is a little --

3 MS. HAYES: One way to do it if you want that
4 idea would be to say instead of determination, an
5 explanation --

6 DR. BROMLEY: There you go.

7 MS. HAYES: -- of why the site should be.

8 DR. BROMLEY: Explanation or something. But
9 we don't need to do it now, right? And then what's
10 next?

11 MS. HAYES: Okay. The next one is in the
12 following paragraph, this is where we're talking about
13 identifying stakeholders, and it's related to the
14 paragraph below the numbered paragraphs that talk about
15 the effecting parties and affected parties.

16 DR. BROMLEY: Yeah.

17 MS. HAYES: And our idea would be that after
18 the sentence in four that we would move the sentence
19 that's now at lines 208 and 208 that starts out special
20 efforts should be made.

21 DR. BROMLEY: I see.

22 MS. HAYES: That we would move that up and

1 then delete the rest of that paragraph because those
2 words are all in the definition in the glossary.

3 DR. BROMLEY: Okay. The idea is they're
4 pulling stuff -- you probably have the paper in front
5 of you -- you're putting stuff up and down here,
6 putting the meat here and getting rid of the rest of
7 the stuff?

8 MS. HAYES: That's right. But we also have
9 some suggestions for changing the language in the
10 definition of affecting parties.

11 DR. BROMLEY: Okay. And that's in the
12 glossary?

13 MS. HAYES: That's way down in the glossary if
14 you can find that line.

15 MR. PETERSON: Can you come up with better
16 wording than affected and effecting in the same
17 sentence? Impacted would be a lot better word I'm
18 thinking.

19 DR. BROMLEY: Yeah.

20 MS. HAYES: That's entirely up to you. We
21 weren't touching that. Yeah, I'm not fond of it
22 either.

1 But the idea in the definition would be to,
2 first of all to change the word "industries" to
3 "entities" to broaden it out. And then let me explain
4 that the group was troubled by the example of the owner
5 of the foreign oil tanker. That just raises a whole
6 lot of issues that we think we've taken care of in
7 other ways by, you know, adding in the international
8 aspects in other parts of the document.

9 Also, we were imagining that, you know, some
10 guy was probably not going to come over from Liberia to
11 your town meeting.

12 DR. BROMLEY: Okay. You just took out oil
13 tanker?

14 MS. HAYES: Just took that one out and said
15 examples of these affecting parties would be, that
16 whole thing.

17 DR. BROMLEY: Okay.

18 MS. HAYES: Now if you can go back up to page
19 6, it's paragraph E-7.

20 DR. BROMLEY: Page 6?

21 MS. HAYES: Yeah.

22 MS. WENZEL: The pages may change a little.

1 DR. BROMLEY: I know.

2 MS. HAYES: There we would just add in this
3 idea that the appropriate government agency should get
4 involved, that they would also be looking at
5 international aspects.

6 DR. BROMLEY: Okay. Good.

7 MS. HAYES: And now we go down to Section 3A5
8 on page 8. As we were looking at this one, we thought
9 you could either add territories, or another way to
10 handle, you know, who are states, what are we really
11 talking about, would be to define states in the
12 glossary. So either solution there.

13 And then at the end to add, "any international
14 aspects must also be considered."

15 DR. BROMLEY: Good.

16 MS. HAYES: And I believe that's it.

17 DR. BROMLEY: Is that it?

18 MS. HAYES: Yeah.

19 DR. BROMLEY: That's it, huh, Margaret? Thank
20 you. Michael?

21 DR. CRUICKSHANK: There are a couple that I
22 think we missed. One was on page 6, state or federal

1 government agency would read a state, federal -- a
2 federal, state or territorial government agency.

3 DR. BROMLEY: I think we should give them
4 license to plug in the words "and international"
5 wherever they deem it.

6 MR. PETERSON: Probably territorial too.

7 DR. BROMLEY: Yeah. Okay. Tony?

8 DR. CHATWIN: Thank you. I think I'm fine
9 with these. I'm just struggling with the aspects,
10 international aspects. What is that?

11 DR. BROMLEY: Good. That's my kind of
12 question. What are aspects? An international what?

13 MS. HAYES: Okay. If an MPA is established as
14 part of the national system, you're asking relevant
15 government agencies to get involved. An international
16 aspect might be that you are in an area, a trans
17 boundary area with another country, so that you might
18 want to talk to the other country about protecting some
19 of the same species or the same kinds of habitat that's
20 adjacent.

21 Another aspect would be if there's a proposal
22 within the MPA to regulate activities that would

1 impinge on international navigation; you know,
2 shipping, navy's activities and so on, you would need
3 to consult with the State Department and the Coast
4 Guard and so on to make sure that that would be done in
5 a way that would be consistent with international law.

6

7 DR. CHATWIN: But the word "aspects," is that
8 a term, a technical term that you use?

9 MS. HAYES: No.

10 DR. CHATWIN: Because I think we would have to
11 define it in a glossary or something like that.

12 DR. BROMLEY: I think the point is here
13 international treaties, obligations, considerations,
14 blah, blah, blah. Can you give us some language before
15 the day is out with less aspects and just a little more
16 specificity?

17 MS. HAYES: Sure.

18 DR. CHATWIN: Issues? International issues?

19 DR. BROMLEY: Pardon?

20 DR. CHATWIN: Issues?

21 DR. BROMLEY: No. Issues are no better than
22 aspects.

1 (Laughter.)

2 DR. BROMLEY: What the hell are they? Tell me
3 again what these issues are.

4 MS. HAYES: Okay. I'll work --

5 DR. BROMLEY: Sorry. I don't get it. All
6 right. So what do we do? Can we say international is
7 sort of finished with an asterisk by it for a little
8 more wordsmithing, Margaret? Is that okay? Thank you.
9 It's wonderful.

10 Customary knowledge has the asterisk by it I
11 guess.

12 Regional. Have we dealt with regional? We
13 haven't have we?

14 MS. RECKSIEK: Yeah.

15 DR. BROMLEY: Did we?

16 MS. RECKSIEK: Yes.

17 DR. BROMLEY: They've already been marked?

18 MS. RECKSIEK: They had to go back.

19 DR. BROMLEY: We already sent them back?

20 Good. So where are we? We have two left,
21 implementation and this group up here. Is that all
22 that's left?

1 MS. RECKSIEK: This just in.

2 DR. BROMLEY: This just in.

3 (Laughter.)

4 DR. BROMLEY: The last time I looked at it, it
5 looked a lot like bullets. So I'm dying to see what it
6 looks like now.

7 We want to get rid of the word "plethora."

8 (Simultaneous discussion.)

9 DR. BROMLEY: Plethora and aspects, what else?

10 MR. FUJITA: It's a bunch of scientific stuff.

11 (Laughter.)

12 DR. BROMLEY: A whole bucket full of stuff.

13 Gobs. (Laughter.)

14 MR. FUJITA: I can summarize this briefly. We
15 tried to respond to the committee's charge of
16 developing a problem statement and to describe how this
17 federal advisory committee is responding to those
18 problems, restate our charge, articulate the benefits
19 of a national system. And we added a call to action,
20 which we hope is compelling and inspiring.

21 DR. BROMLEY: This is a different child. This
22 is good. It's wonderful. But it's going to take time

1 to read and think about. So the question I have for
2 you is how you'd like to proceed. How would you like
3 to proceed? Terry?

4 MR. O'HALLORAN: Is there a way to get this
5 printed so that we could actually -- everyone could
6 have a page to look at? Because it's hard to read, and
7 we read at different speeds, too.

8 MS. WENZEL: Yeah, we can do that.

9 MR. O'HALLORAN: Because it's quite lengthy.

10 DR. BROMLEY: Let me just raise some general
11 issues. If I'm on the committee who's charged with
12 implementation and next steps and other stuff. I wish
13 I would see right at that first sentence reference to a
14 couple of Ocean Studies Commissions.

15 I know it's in there somewhere. Where is it?
16 I mean, in a sense, we're starting out like the elite
17 class. We're saying all of our colleagues have
18 identified that the oceans are in trouble. And I guess
19 I'm just asking, is there a better way to speak to the
20 public rather than saying, ha, those of us that have
21 been anointed to be members of the theory class have
22 identified all these problems, you know?

1 MR. FUJITA: That's why it starts scientific
2 studies, local experience, cultural traditions, and
3 these other commissions all say the same thing.

4 DR. BROMLEY: Where do we get the most
5 traction? I think the first sentence is a traction
6 sentence.

7 Max?

8 MR. PETERSON: I think we have to give some
9 relevance to the recent major national studies and
10 don't just call them a plethora of scientific studies.

11 I think we have to cite at least the three most recent
12 studies, and then you can cite the other things.
13 Because it tends to relate a wealth of experience and
14 culture knowledge and so on to that level.

15 And one of the things -- I think to imply that
16 all of the ocean ecosystems are in trouble is an
17 overreach, too.

18 DR. BROMLEY: Yeah.

19 MR. PETERSON: So I would start off by saying
20 the scientific studies, recent studies such as, and I
21 would cite them, as well as experience.

22 DR. BROMLEY: That's right. I would cite

1 them, but I would characterize them as expressions of
2 general public concern originating at a variety of
3 places in the polity, okay?

4 MR. PETERSON: Right.

5 DR. BROMLEY: I mean, what did the Ocean
6 Commission do? What did the Pew do? They went around
7 the country and they listened to stakeholders. They
8 held lots of very expensive and time-consuming meetings
9 listening to people who relate to the ocean somehow.

10 So we've already got an awareness, a set of
11 activities and constituents that have shown up to
12 testify and plead. And so, you know, again, it's sort
13 of how we open this. And we open it with here the
14 scientists are going to tell us, or are we opening
15 with, there's kind of general public awareness now that
16 the oceans are in trouble?

17 MR. PETERSON: I think the rest of that
18 paragraph is quite good.

19 DR. BROMLEY: I'm sure it is.

20 MR. PETERSON: Yeah. So I think you just need
21 an opening sentence or two that refers to those studies
22 and say the public participation in this series of

1 studies, you know, has pointed out, or something, you
2 know.

3 DR. BROMLEY: My guess is that when Pew and
4 these guys went around to all their meetings they were
5 beat upon by lots of people saying do something about
6 the oceans. Fix it. There's a problem. So isn't that
7 the way to get a hook and to get some traction?

8 So -- sorry. It's just kind of the way it
9 starts. I'm sure it's all great, but maybe it could
10 use some work. So now how would you like to receive
11 and process this? Because in a sense, these folks have
12 done a nice, it's like I just said, a thorough job of
13 laying out solutions.

14 MR. PETERSON: Let me suggest that Rod put a
15 couple of new sentences in there and then print it out
16 and let us all look at it.

17 DR. BROMLEY: You want to see it as a free
18 standing thing?

19 MR. PETERSON: Yes.

20 DR. BROMLEY: Not plugged in with the full
21 document? You'd like to see it as a free standing page
22 or two? Okay. And when you do that, Rod, could you

1 indicate which sentences or which lines might it
2 replace?

3 MR. FUJITA: Okay.

4 DR. BROMLEY: Okay? Okay. So we're going to
5 send --

6 MR. BENDICK: Mr. Chairman, excuse me.

7 DR. BROMLEY: Yeah.

8 MR. BENDICK: I think it would make sense if
9 we just picked up one piece of it. We ought to just
10 look at the concepts in the other paragraphs so that we
11 short circuit one level of things to see whether the
12 ideas are okay there, and then we can go back and
13 wordsmith.

14 DR. BROMLEY: Okay. Is everybody clear what
15 Bob is suggesting?

16 MR. URAVITCH: Give it to us all at once.

17 DR. BROMLEY: Okay. All right. Now have we
18 left -- is implementation, you say it's been finished?

19 I'm sorry. I'm trying to keep track of a lot of stuff
20 up here, so. Have you reported?

21 MS. GLACKIN: No we haven't but I thought we
22 were going to look at these other paragraphs.

1 DR. BROMLEY: Do you want to wait? Keep me on
2 track.

3 DR. McCAY: I think the point is that right
4 now we need to see what the major ideas are in this.

5 DR. BROMLEY: Okay. Good. Mike?

6 DR. CRUICKSHANK: I got a little bit lost
7 there. That introduction, I had an issue with that as
8 it was written originally.

9 DR. BROMLEY: Yeah. Well, why don't you deal
10 with Rod on that?

11 DR. CRUICKSHANK: Okay.

12 DR. BROMLEY: Is that okay?

13 DR. CRUICKSHANK: Sure.

14 DR. BROMLEY: Speak to Rod or whoever is going
15 to rewrite this and make sure your things is taken into
16 account.

17 Does this suggest that we're ready to go back
18 and do a little more work in a few groups?

19 MR. FUJITA: I think once we get through the
20 major concepts here I'll have marching orders, and then
21 we can --

22 MS. GLACKIN: Rod, along those lines, will you

1 or somebody in your group be able to just kind of give
2 us a point or two on each paragraph or each section?
3 Because it is very hard to read this dense text.

4 MR. FUJITA: I could try to do that if you
5 like.

6 DR. BROMLEY: Is your hand up Mike or --

7 MR. NUSSMAN: All I was going to say was let's
8 not wordsmith it. Let's just -- if you would just give
9 us the highlight of each paragraph.

10 MR. FUJITA: Okay.

11 DR. BROMLEY: Is that okay?

12 MR. FUJITA: Yeah.

13 MS. WENZEL: Do you want me to go back or,
14 we'll start with you.

15 MR. NUSSMAN: Okay. Well, the major concept
16 in the first paragraph is that there's a need to do
17 something about the oceans. And it points out that one
18 of the big problems is this fragmentation of authority
19 and lack of coordination resulting in inefficiencies
20 and failure to realize opportunities.

21 DR. BROMLEY: What is inefficiencies?
22 Government money spent badly?

1 MR. NUSSMAN: Lost opportunities.

2 DR. BROMLEY: Why don't we say that? Why
3 don't we say monies not being spent smartly?

4 MR. NUSSMAN: Okay.

5 DR. BROMLEY: Administrative overlayering,
6 burdensome red tape. It's your money. Don't let them
7 tell you how --

8 MR. NUSSMAN: All right. So that's the first
9 paragraph. The second paragraph pulls out the array of
10 marine managed areas as kind of an example of all those
11 problems -- lack of coordination, loss of efficiencies,
12 lack of synergy, okay.

13 And then it tries to demonstrate in response
14 to Dolly's concern, that MPAs do add value to existing
15 tools. They're not meant to replace, but they're meant
16 to complement other tools. But these MPAs as
17 individual sites have pretty severe limitations. And
18 you can read what they are, you know.

19 One is that it's hard to achieve multiple
20 objectives in a single site, but it's really easy to do
21 that, or relatively easy to do that in a network of
22 sites, okay. So multiple objectives.

1 And then the next section is about why we
2 would want to do this national MPA. Well, it's to
3 address this problem of lack of coordination, realize
4 the efficiencies inherent in creating a system, and
5 creating some synergies that would not otherwise exist.

6 And we restate our mission here. So there's
7 two levels of marching orders. One is the oceans are
8 in trouble. Let's do something about it. The other is
9 the executive order tells us to make recommendations.

10 And then four and five are going to go because
11 Mark and Steve have articulated a nice paragraph
12 following that of all the benefits --

13 DR. BROMLEY: The bullets.

14 MR. NUSSMAN: The bullets should have been
15 deleted. Sorry about that. Are we looking at the
16 right one?

17 MS. WENZEL: This is the revised.

18 MR. NUSSMAN: Okay. Well, anyway, there's
19 another paragraph that Mark and Steve gave me that
20 provides a narrative of the benefits in a real nice
21 form. None of it is going to be a surprise to you. It
22 just kind of puts it all together.

1 And then the last part is intended to
2 demonstrate that, you know, the power of these
3 recommendations comes from the fact that a whole bunch
4 of people with diverse interests identified a common
5 goal, and despite our differences, came up with these
6 common recommendations.

7 And we hope that, you know, the nation as a
8 hook can follow our example, rise above our
9 differences, participate fully in the realization of
10 this vision of a national MPA system.

11 DR. BROMLEY: Okay. Bob?

12 MR. BENDICK: Yeah. There's just one little
13 paragraph missing that has to do with the things it's
14 not going to do. It's not going to abridge the rights
15 of tribes or states. It disappeared somewhere.

16 MS. WENZEL: Here's that paragraph.

17 MR. FUJITA: It's there.

18 DR. BROMLEY: Okay. So, is everybody -- yes,
19 Mary?

20 MS. GLACKIN: I just want to make a comment.
21 I don't think it was there when Rod spoke to it, but --
22 a comment about the overall benefits that was back I

1 guess in the second paragraph there when we were
2 talking about, you know, you need a network to do this.

3 It strikes me that one of the benefits is --
4 and we've certainly heard in this committee quite a
5 bit, people coming in and talking about having some kind
6 of protected area, but having absolutely no idea the
7 effectiveness of that.

8 And I think that one of the things we're
9 trying to get here is that if you're part of the
10 national network you are meeting certain criteria, and
11 you'd actually be able to say something about how
12 effective it's been.

13 So I think that's a significant enough point
14 that it should be kind of up front. And it gets to
15 this inefficiency. It's not only inefficiency of how
16 these are managed, but inefficiency of just them
17 existing and not managing them.

18 DR. BROMLEY: Good. All right. It's two
19 o'clock more or less. I want to go back over this list
20 and make sure everyone knows what they're going to do.

21 And if they have nothing to do, I have an idea for
22 them.

1 Are we clear about what's going to happen
2 here, each group? Some of you have done your work.
3 You're finished. Some of you are going to do more work
4 and figure out how you're going to do it, okay?

5 MS. GLACKIN: We didn't report out on
6 implementation.

7 DR. BROMLEY: I know. But I thought you had
8 just said you wanted to wait.

9 MS. GLACKIN: No.

10 DR. BROMLEY: You're ready now?

11 MS. GLACKIN: Yeah.

12 DR. BROMLEY: Okay.

13 MS. GLACKIN: Okay. I think this will be
14 brief. And as I alluded to before, it does intersect
15 with what the regional group looked at.

16 First of all, let me mention, when I listed
17 the members up there, I neglected to put John Ogden on
18 there, so my apologies, John.

19 One of the issues that we wanted to raise to
20 the group is that, you know, I think one of the things
21 is that it's not clear what the role of this national
22 system is in the current U.S. Ocean Action Plan. And

1 we point out that we have an opportunity tomorrow with
2 Mr. Connaughton being here to actually make that. We
3 might want to give some thought about how to ask those
4 questions.

5 You know, I would remind you that this is the
6 90-day response to the Ocean Policy Commission report
7 and more will come, and the committee should think
8 about how it can influence what more is to come.

9 The second point that's up there was that we
10 discussed and questioned the assumption that we've been
11 operating on or that the current draft has that no new
12 authorities are needed to move forward with
13 implementation and whether that's in fact a good
14 assumption. So there was a couple of parts to that.

15 One had to do with funding, and we are
16 suggesting a specific language change on line 353 here
17 where it talks about getting money from Congress is to
18 back off a little bit from that and talk about
19 establish sustainable financing for the system.

20 So the linkage between, you know, can you get
21 more money without some kind of legislative
22 authorities. And you definitely can, but it's a

1 consideration.

2 The second, though, is really our interaction
3 with these regional entities and so this is as I
4 alluded to a few minutes ago, we've been using this
5 term "regional entities" to talk about what's coming
6 out of the Ocean Policy Commission report and the Ocean
7 Action Plan.

8 And I think if we want to ask them to do
9 anything, then you do get into the issue of some sort
10 of authorities.

11 I don't know whether we need to go there or not, but
12 just to point that out, and it's probably, you know,
13 could be wrapped into some of the discussion tomorrow.

14 The third point there is we talked about have
15 we written down enough to ensure that we're going to
16 get these ecological networks? And what we
17 specifically, if you look at line 355, it talks about,
18 you know, we kind of tersely say develop national
19 priorities to be considered by regional entities.

20 And what we ended up talking about a little
21 bit is the example, the model of the NERR system, and I
22 don't know whether people are familiar with that, the

1 National Estuary and Research Reserves. And in that
2 case, there was some top level work done to get
3 representative estuaries to set the coals for them, and
4 then it was all bottom up for states to say whether in
5 fact they wanted to declare something an estuary and
6 reserve.

7 It just seems like that we need some sort of a
8 little bit more punch in terms of what needs to be done
9 to establish these national priorities. And we have a
10 specific recommendation there to link it back to the
11 words in the executive summary that's there.

12 I think the fourth point there is that the
13 documentation should also address administrative
14 networks and efficiencies of them in some fashion and
15 how to do that.

16 And then our point, the fifth point here is
17 that we need to document clearly the specific criteria
18 that needs to be met to be part of the network. Right
19 now there's one line correction there where we're still
20 referencing something we think that's part of the old
21 Work Group 1 report, and it probably should be
22 referencing Table 1, but we don't have any place on

1 criteria for either recommending they be developed or
2 providing something for standards monitoring
3 performance and those list of things there.

4 And I think the last comment which I neglected
5 to write down was that when you look at implementation,
6 what you might want to see in a document kind of end to
7 end, it's spread out a bit here. Most if it's under
8 this Section 3, but then there's some things that I
9 think are part of that that end up back in effective
10 stewardships. So we might want to look at just
11 organizing things in the flow a little bit.

12 Thank you.

13 Oh, I should ask my colleagues if they have
14 any comments, or.

15 DR. BROMLEY: I'd rather you not.

16 (Laughter.)

17 DR. BROMLEY: This is wonderful, but I don't
18 want to open this up now. Mark, go ahead. Is this
19 your committee? No, this is not your committee.

20 DR. HIXON: No, I'm not on this committee. I
21 just wanted to follow up. This issue of ecological
22 networks that Mary just discussed, there's a word, a

1 fairly critical word left out in the existing document
2 on line 133, the word "ecological" somehow got erased
3 between drafts.

4 DR. BROMLEY: Okay.

5 DR. HIXON: Right in front of "network."

6 DR. BROMLEY: Yeah. Right.

7 DR. HIXON: It needs to be back in there.

8 DR. BROMLEY: Wonderful.

9 DR. HIXON: Thank you.

10 DR. BROMLEY: Make sure Lauren gets this or
11 Heidi gets it, somebody gets it.

12 Okay. The deal here I think is that we have
13 one hour before our program changes gears. And, Mary,
14 I guess you folks have done a wonderful job of
15 reporting issues and things that need more work. The
16 people who were with that group or would like to join
17 it, I urge you to do so.

18 And while you were working, I was not loafing.

19 And so I've started drafting a template as it were,
20 with the benefit of Lauren's photograph or somebody's
21 photograph from our trip on the way over to -- where
22 did we go, Lelei? Kawauwa?

1 So you just take that. I haven't written any
2 recommendations. I'm just giving a placeholder. If
3 we're going to offer recommendations, and this is not
4 good for text, but it's great to look at. NOAA always
5 calls your attention to the background. We're going to
6 have some recommendations about why a national system.

7 Next. What will it do?

8 Next, Lauren.

9 How would it do it?

10 Next, Lauren.

11 How would it relate to other programs and
12 efforts?

13 Next, please.

14 How would it be funded?

15 Next.

16 What are its performance measures?

17 Next.

18 How would it be expanded or modified?

19 Next.

20 There is no next, okay? These are my
21 placeholders. We don't need to do it now. But any of
22 you who are not implicated in the meetings that are

1 going to take place now with Mary or whoever else, and
2 if you want to start, I think our task, one of the
3 tasks that we need to do in a sense is to see if it's
4 possible for us out of what we have and what we think
5 we will have by tomorrow to create a few little
6 recommendations under these headings.

7 And please feel free to tell me those are the
8 wrong headings, or they're okay but we need some new
9 ones, or what have you. We don't need to do it now.
10 But if anybody wants to stay back out of the committees
11 that are going to go away and start thinking about
12 crafting recommendations from this document, let's do
13 that.

14 Mike and Marty. Mike?

15 DR. CRUICKSHANK: Are those recommendations
16 under those headings, or that's questions you are to
17 answer?

18 DR. BROMLEY: These are categories with text
19 blocks down here which is covered up by the water.
20 These are headings to mark its recommendations. So the
21 idea would be how do we expand, how would the system be
22 expanded. There would be two or three recommendations

1 to speak to that.

2 So what I've tried to do is just create
3 placeholders for specific recommendations. We do want
4 to think about making recommendations. So that's all
5 I've done.

6 Yes, Mike?

7 DR. CRUICKSHANK: I have another issue that's
8 bothering me. That's on page 20, 874, line 874. It
9 says production MPAs, MPAs established. My question in
10 my mind is, this principally you've got one or the
11 other and there's no reference to any other
12 preferences. They're left hanging.

13 DR. BROMLEY: All right. Good. There was a
14 hand up over here I think. Yeah, Maggie?

15 MS. HAYES: If it would be okay with you, Mr.
16 Chairman, I'd love to wrap up the international part
17 right now. I won't be able to stay all afternoon. I
18 think I can do it very quickly.

19 DR. BROMLEY: All right. Wait. Are there
20 people who want to stay behind, that's fine. So
21 anybody who thinks we're ready to start doing some
22 wordsmithing in these placeholders, just come over here

1 and we'll talk about it. Whoever wants to stay.

2 MS. HAYES: Okay. Now, instead of the
3 international aspects language, again, this was on page
4 6, line 263. We would say instead at the end of that
5 sentence. Outreach to other countries and
6 international organizations and ensuring compliance
7 with international law.

8 DR. BROMLEY: That's right here is it, Maggie?

9 MS. HAYES: Mm-hmm.

10 MR. KING: Whatever. yes.

11 MS. HAYES: And I can give that language to
12 Lauren if that sounds all right. Now, unfortunately,
13 on the page before, when I skipped from paragraph 4
14 down to the unnumbered one, put the sentence up, I
15 skipped over a couple of other small changes that we
16 would like to suggest, and they are on the screen.

17 The first one is in the paragraph numbered 5,
18 so it would say an assessment of the national interest,
19 including national security and international issues.

20 DR. BROMLEY: Okay. Why don't you just give
21 to us, Maggie?

22 MS. HAYES: Okay. The other one I was talking

1 about, the broader environment, even beyond the U.S.
2 EEZ. That's in paragraph 7.

3 DR. BROMLEY: We trust you. You're from the
4 State Department.

5 (Laughter.)

6 DR. BROMLEY: Okay. All right. Does
7 everybody know where they're going to go and what
8 you're going to do when you get there? Okay. If
9 you're not clear, let's hear it now.

10 Tony, you look like you want to say something.

11 DR. CHATWIN: Well, I'd like some clarity on
12 the regional. Do you know what we're going to do?
13 Because I'm not clear.

14 MR. RADONSKI: Well, I got the idea that we're
15 just a bit terse and we just have to get a little more
16 prosaic, precise. Okay.

17 DR. BROMLEY: If you'd like, I don't want to
18 put you on the spot. Maybe I can come over and talk to
19 you a bit or something. If you don't want anything to
20 do with me, I certainly understand that.

21 DR. CHATWIN: You won't take it personal?

22 DR. BROMLEY: I never take anything

1 personally. Okay. Do people know what they're going
2 to do? We need to be back here, and there's a break in
3 the middle of this, and you are adults and you can
4 decide if you're going to break or not. But at three
5 o'clock we have very special guests, and we're going to
6 start at three.

7 (Whereupon, at 2:17 p.m., the meeting recessed
8 to convene breakout groups.)

9 DR. BROMLEY: We are at the more interesting
10 part of the day in which we get to listen to other
11 speakers besides ourselves.

12 And the point of this afternoon's program was
13 in a sense driven by an aspect of our charge, which is
14 to identify gaps, to talk about what was needed to fill
15 those gaps. And the executive committee felt that it
16 was quite important to have this discussion now,
17 because while we haven't spent a lot of time on the
18 work product we've done so far, implied in there is a
19 lot of confidence in science and implicit with ideas
20 that while we know how to identify connectivity and
21 what have you.

22 So I think this is sort of -- we're now

1 looking to the future because these two speakers were
2 asked to come and help us think about stuff we've sort
3 of taken for granted that you assumed. And so I'd like
4 you to think about this session as the first launch of
5 our future activities, in a sense getting us to begin
6 to think a little bit --

7 PARTICIPANT: Dan, could you use the
8 microphone, please.

9 DR. BROMLEY: Put my mouth up against this
10 black thing. Is that what you mean? I'm really sorry.
11 I thought my voice was -- oh well. Since you've all
12 heard what I just said, I'll not repeat it.

13 The point here is we're really happy to have
14 Ed, I'm sorry, Dr. Ed Houde and Dr. Patrick Christie
15 here. And Charlie is going to introduce them for you.
16 So, Charlie?

17 DR. WAHLE: I told Lauren I wouldn't say this,
18 but this is the session where we say enough about
19 process stuff and we start talking about the fun
20 things. So, as Dan said, science figures heavily into
21 the thinking and even the law, and it's something that
22 we need to do more of as a group and as a nation.

1 And as a first step in our collective work
2 together, we thought we'd bring together for you two
3 people who can speak eloquently and with experience
4 about the two different kinds of science that inform
5 the design and the management and the evaluation of
6 MPAs, the real science, the natural science stuff.

7 (Laughter.)

8 DR. WAHLE: And then the other thing, the
9 social science thing, is -- it is a strange thing, but
10 it is actually, in many people's view, including mine,
11 probably more important when the rubber really hits the
12 road.

13 So we're very fortunate to have two folks here
14 to start this dialogue that I hope will go on for some
15 time.

16 Dr. Ed Houde, who is at the Chesapeake
17 Biological Lab at the University of Maryland, who many
18 of you know was the committee chair for the National
19 Research Council, the National Academy of Science
20 studying MPAs. Ed is a fisheries scientist and has
21 worked on other committees with NOAA and other
22 organizations relating to fisheries and its management.

1 And Ed describes himself and I think we all
2 will too as an honest broker in the dialogue between
3 the policy and science world.

4 Second is Dr. Patrick Christie from the
5 University of Washington. Patrick has experience with
6 a lot of different aspects of MPAs from the social
7 science, which he's in now, to being an advocate and a
8 practitioner, and he brings that experience to the
9 science. He's worked internationally in the
10 Philippines and more recently in the U.S.

11 And he's going to focus his talk on some of
12 the dilemmas and the challenges of using these tools in
13 an effective and an equitable and objective way.

14 So with that, why don't we begin with Ed. And
15 I think both speakers will be happy to answer
16 questions.

17 Ed.

18 DR. HOUDE: I'm pleased to have a chance to
19 address the Advisory Committee. As Charlie said, I
20 described myself in the MPA business as an honest
21 broker. I was asked to chair the NRC Committee on MPAs
22 three or four years ago and did so. And since that

1 time I've learned a lot about MPAs and have been asked
2 to give my perspective on it after I review and
3 synthesize information that mostly other people have
4 gathered.

5 But I have gained a perspective over the
6 years, and I'm hoping that I can translate some of that
7 to you today.

8 My topic is called Knowns and Unknowns and
9 it's supposed to be -- will focus on natural sciences,
10 well, it's mostly on natural sciences, but people and
11 organisms and biological communities of course that are
12 all part of the ecosystem.

13 And so I'm going to talk to some extent about
14 the -- and I know Dan's going hate this -- the issues
15 that are related to people and ecology and ecosystems.

16 DR. BROMLEY: And aspects.

17 DR. HOUDE: And aspects as well.

18 (Laughter.)

19 DR. HOUDE: While fishery management in recent
20 years is successful, it never can be controlled. We
21 know that the major problem in managing marine
22 fisheries is over capacity. Too much effort, and it's

1 very, very difficult to control that amount of effort.

2 The theory behind stock assessments and stock
3 assessment models and application of these models in
4 fishery management is not half bad. But actually
5 bringing some of those theories into effective
6 management is very difficult.

7 So alternative approaches are needed. And
8 spatial management, MPAs would be one kind of spatial
9 management, or one kind of alternative management that
10 we ought to use.

11 But I think that we've evolved in the last few
12 years. A few years ago when I first began to be
13 involved in MPA science and discussions, we looked at
14 MPAs as an alternative to conventional management, at
15 least a lot of people did. And I think we're not
16 looking at MPAs as alternatives so much anymore as a
17 component of fisheries and ecosystem management in
18 marine systems.

19 And spatial management can be an important
20 component, and perhaps one that can be described as
21 underutilized.

22 Many of the slides you're going to see today

1 are going to look like things that you've talked about.

2 I came in about a half hour before you ended your
3 discussion earlier this afternoon, and lots of the
4 topics that are in my slides were on your agenda.

5 But there's there, in my view at least, three
6 major goals in marine preserves and protected areas.
7 Augmenting fishery management is high on that list.
8 Conserving biodiversity and habitat is high, and
9 maintaining other ecosystem services. I'll talk more
10 about those services in a minute.

11 But there are a lot of other important reasons
12 to think that spatial management, marine managed areas,
13 marine protected areas, have an important role to
14 protect cultural heritage, enhance recreation and
15 tourism, increasing scientific knowledge, and providing
16 educational opportunities.

17 That one called increasing scientific
18 knowledge, on occasion we've been accused of being
19 self-serving, some of our scientists, saying we want to
20 set aside parts of the ocean so that we can do research
21 on them. But I think it's important. There are lots
22 of questions about how marine ecosystems work and how

1 protected marine ecosystems will evolve under
2 protection.

3 Marine managed areas are really a hierarchy of
4 spatial management approaches. You know that. And
5 those of you who have been involved in this business
6 for years know that lots of organizations and groups
7 have their lists of the kinds of marine managed areas.

8 But the important point is that there is a
9 hierarchy of spatial management approaches. Many of
10 these approaches aren't used enough.

11 The one that I point out there of course is
12 the one that's controversial, marine reserves, these
13 no-take areas where we think there should be no
14 removals of living organisms. This is the polarizing
15 part of the hierarchy that has caused I think so much
16 contention.

17 Next.

18 Well, in that hierarchy, I think the Florida
19 Keys National Marine Sanctuary is a nice example of how
20 the full hierarchy of kinds of marine protected areas,
21 especially managed areas, can be put into management
22 practice, but it wasn't easy.

1 Many of you of course know Billy Causey and
2 have heard the story of how the Florida Keys National
3 Marine Sanctuary evolved. It took a long time. It
4 didn't happen overnight. It took a decade or more, and
5 it's still evolving.

6 It takes a lot of work and there are a lot of
7 different kinds of spatial management that can be
8 implemented in a marine managed area as big as the
9 Florida Keys.

10 The National Research Council, one of the
11 major conclusions that we came to was a very simple
12 one. Marine ecosystems are heterogenous. The
13 management that follows the more conventional kinds of
14 effort control, control of catches as we've
15 traditionally used, doesn't take advantage of the fact
16 that marine ecosystems are heterogenous and that that
17 should be considered in implementation of these
18 management programs.

19 We should be shifting the emphasis from
20 catching effort controls to spatially explicit
21 management, at least in some circumstances, with
22 emphasis on zoning and networking. And of course,

1 13158 tells us, it tells you that we need to move in
2 that direction.

3 It should be emphasized, shift the emphasis
4 from managing individual species or individual habitats
5 to conserving the productive capacity of ecosystems
6 rather than individual stocks.

7 Implementing MPAs of course are also an
8 important step toward ecosystem base fisheries
9 management, which Hugh Scott and other committees and
10 high level panels have been advocating in recent years
11 and which I believe we're going to move toward.

12 There are new circumstances that drive a move
13 toward spatial management as well. Marine ecosystems
14 are under stress. Conventional management needs help.

15 It doesn't need to be replaced, but it needs a lot of
16 help, and this true whether we're talking about
17 managing fisheries or managing, restoring, preserving
18 habitats or conserving biodiversity.

19 Resources in marine ecosystems are often
20 scarce, they're valuable, and they're not evenly
21 distributed. Human effects are disproportionately
22 concentrated in productive and unique and diverse parts

1 of the aquatic ecosystem.

2 So this again is an argument that we ought to
3 be managing parts of marine ecosystems with the sense
4 that they are special, that the landscape, or the
5 seascape if you will, is heterogeneous and we should
6 have that in mind.

7 Spatial management should be expanded in my
8 view, but it alone won't be sufficient to protect and
9 preserve the managed valuable resources. We need to
10 continue to apply sort of the more conventional
11 management approaches.

12 I'm going to talk about the new circumstances
13 in a minute, but I'm going to converse just a little
14 bit here before we do, talk about conserving
15 biodiversity.

16 I think most of the arguments and contentious
17 discussions about implementing marine protected areas
18 have revolved around fisheries management.

19 But conserving biodiversity is an important
20 role for spatial management. And conserving
21 biodiversity isn't again just purely aesthetic or
22 existence heritage importance, there are market values

1 associated with it as well.

2 So, biological products such as food,
3 pharmaceuticals biomaterials, biodegrading microbes
4 that are all part of the reason to preserve marine
5 biodiversity.

6 And ecosystem services that we often know
7 about don't give as much importance as we should such
8 as water purification, bioremediation, nutrient
9 cycling, et cetera. And of course aesthetic values,
10 including recreational activities and tourism are
11 important.

12 Many existence heritage values that we found
13 in our sea committees generated some of the most
14 contentious arguments. We came out of those
15 discussions coming to consensus that existence and
16 heritage values are important and that they will be
17 more important as the years go by.

18 MPAs are a more comprehensive tool for
19 biodiversity conservation than conventional approaches
20 of effort control. And one of the important outcomes
21 of this is that MPAs can protect many species that are
22 otherwise unmanaged.

1 We know in the Chesapeake Bay, for instance,
2 there are lots of organisms that are key in importance
3 in the ecology today, such as some of the forage fishes
4 like anchovies are among the more important organism in
5 the bay, yet they're unmanaged.

6 Setting aside appropriate spatially managed
7 areas can account for conserving those kinds of
8 organisms that otherwise might not be.

9 MPAs to protect specific ecosystem structure,
10 habitats, the services. You see some of the services
11 listed there.

12 The public is sensitive of you threaten
13 biodiversity. They tend to be more support of, at
14 least in my opinion, of accepting spatial management in
15 protected areas. When we refer to biodiversity with
16 respect to fisheries. So I think there's real room to
17 make progress here.

18 Okay. This is what I call the new
19 circumstance. Now this is a salmon fishery in Bristol
20 Bay, Alaska. And overcapacity, too much effort. It is
21 one of the main problems in fishing. Now I'm not naive
22 enough to think that these guys aren't fishing

1 effectively and profitably in Alaska. They are. But
2 it's an example of how heavy a fishing effort can be in
3 restricted areas.

4 And it happens in the most productive areas.
5 In this case the gears they use is not destructive of
6 the environment, but in places where fishing gears tend
7 to be destructive of the environment, it's this kind of
8 fishing effort that has become problematic.

9 I come from the Chesapeake Bay, and I show
10 this slide, and people say, well, it's not that way in
11 the Chesapeake Bay. But if you come to me on a Sunday
12 afternoon down in Solomons, Maryland, north of the
13 Patuxent River, I would argue that it's not much
14 different from now. You would see about 50 to 100
15 recreational fishing boats. And you'd see five to ten
16 commercial crab boats tending some 2,000 crab pots each
17 with an buoy that people are trying to navigate around.

18 You would see a sailboat race go right through
19 the middle of the fishing boats. You'd see two or
20 three jet skiers, and you'd see a couple of people
21 trying to kayak through all this.

22 (Laughter.)

1 So it really is competition for space. And
2 the idea that we need to network and to zone some parts
3 at least, the marine ecosystem, particularly coastal
4 systems or maybe estuary abatements, the time to think
5 about it is upon us.

6 The new circumstances that result from
7 overcapitalization and excessive participation, effort
8 levels certainly have increased, and more importantly,
9 effective effort has increased out of proportion in
10 fisheries.

11 So a boat day is no longer the boat day that
12 it was 20 or 30 years ago. It's much more effective
13 effort, and this is true whether we're talking about
14 recreational or commercial fishing activity. But a day
15 on the water is a much more effective day on the water
16 than it used to be.

17 And reducing effort is difficult. So spatial
18 management may have a role here where we need to set
19 aside some very sensitive areas or areas that can't
20 sustain these high effective efforts.

21 And among the new circumstances of course are
22 overfished stocks, impacted habitats, collapsed

1 fisheries, damaged habitats, by catch issues,
2 threatened and endangered species. You know about all
3 of those.

4 Next.

5 And of course, there has been -- this is a
6 positive thing here among the new circumstances.
7 There's been a shift in management philosophy in the
8 last 15 years. Precautionary approach and risk averse
9 management are more than lip service in my mind.

10 We now see virtually -- these words in
11 virtually in every management agency's lexicon, and at
12 least I can see it happening on the Chesapeake Bay in
13 our management discussions, not necessarily always
14 effective, but more effective than you would read --
15 than you would think from the popular press in the last
16 six months.

17 Shifting the burden of proof toward those who
18 utilize -- the stakeholders who use resources or use
19 the marine ecosystem, and looking at the ecosystem as
20 the productive engine, as thinking more about
21 conserving the positivity of that ecosystem rather than
22 maximizing some benefits from an individual stock,

1 moving toward multi-species and ecosystem-based fishery
2 management, which I'm convinced we will do.

3 I don't know how effectively we will do it in
4 the next decade, but we will do it. I think that
5 everyone is aware of that. The Hugh Scott report of
6 course puts it right at the top of his list of what we
7 ought to be doing.

8 There is a broad stakeholder base also that's
9 evolved in the last 20 to 30 years. The traditional
10 stakeholders, primarily fishers and those other users
11 of marine resources, still are among the most important
12 stakeholders in marine ecosystem utilization, but the
13 traditional influence of fisheries I think is
14 diminishing. People who want to just watch fish, or
15 appreciate the marine ecosystem or are concerned about
16 the services that the marine ecosystem provides, the
17 importance in my view, they will voice that in the
18 future.

19 There's a range of fisheries MPAs. MPAs are
20 not new. Spatial management is not new. New
21 circumstances that demand that we apply this kind of
22 management more. But we've used temporal closures

1 where we close the spawning areas of anadromous fishes
2 historically. We've got to close some areas to
3 particular kinds of fishing and particular kinds of
4 fish, for instance, Gulf of Mexico shrimp, to increase
5 the profits and increase the dimensions in fisheries.

6 We need to set aside nursery areas for one
7 reason or another. And I'll give you a couple of
8 examples here of what's historically been done.

9 No-take areas and fishery reserves have been
10 less used in that sense. And while they're not
11 completely new, we think there's a bigger role for
12 them. And your business of course is to tell us how we
13 might do it. And it's my business too.

14 But we need to rebuild and restore stocks,
15 look at the spillover from these protected areas and
16 how we're going to enhance recruitment or increase
17 catches outside of the protected area.

18 And we need to protect critical habitat and
19 communities. By catch reduction area. This is a role
20 that protected areas can play. Selectively designating
21 those areas that are highly susceptible to sustained
22 catches of things that we don't want in spatial

1 management seems to be a prime way to not just conserve
2 threatened and endangered species, but the young or
3 pre-recruits of targeted species, and of course those
4 species that we don't want to catch.

5 Area closures. Closures are a traditional
6 management approach, but they're underutilized. Area
7 closures including time space closures and rolling
8 closures, have been used for centuries. And extending
9 the concept to protect the ecosystem can benefit
10 diversity and conservation, multi-species management.

11 You see, it's a relatively simple idea, but
12 actually implementing this kind of management is going
13 to be a complex extension of the concept, and lots of
14 questions for all species management.

15 Now my guess is, like multi-species
16 management, we look at optimization models. We really
17 can't optimize everything. If you're going to do
18 multi-species fishery management, you can optimize some
19 things but not everything.

20 And my guess is the same will be true in
21 utilizing protected areas, our spatial management; that
22 you can optimize some components of the ecosystem and

1 some parts of fisheries, but perhaps not everything.

2 So somebody wins, somebody loses. How do we
3 do this best? What are the costs of managing MPA
4 versus conventional management approaches?

5 There are new and clear benefits that are
6 broadly supported. When we did the NRC study, I think
7 these -- I would say these are among the known ones.
8 But wherever we went, everybody supported the idea that
9 we should protect nursery areas where young fish, where
10 we know there are young, fast growing fish, people
11 support the idea that we ought to either stay out of
12 those areas or at least minimize that would impact
13 those young grow fast moving fish.

14 Secondly, we should protect threatened and
15 endangered species. There weren't any arguments to it.

16 Se should protect and restore severely
17 impacted habitats. Usually there were no arguments.
18 If the fishery were valuable enough, arguments,
19 counterarguments came up that the fishery wasn't really
20 damaging the habitat. Some of those arguments were
21 real and worth listening to.

22 But generally, people wanted to protect

1 critical and important habitats. And reducing by
2 catch, particularly associated with nursery areas,
3 generally was an accepted recently instituted spatial
4 management form of MPAs.

5 So there's all -- we can list a bunch of
6 things that fishery benefits might come from marine
7 protected areas. And there's evidence that in all of
8 these nine pieces of evidence that I listed, there is
9 evidence to support some benefits.

10 Protect nursery areas, critical habitats,
11 limit by catch, threatened and endangered species,
12 rebuild the age and size structure of stocks and
13 increase the fecundity.

14 Promote spillover and dispersal from protected
15 fishing zones. But this is still one of the most
16 controversial potential benefits, largely because we
17 don't know enough about fish behavior and oceanography
18 in all life stages, in particular fishes and for whole
19 communities that we might want to protect, to judge how
20 well the benefits are being delivered.

21 Reduce fishing mortality rates. I put a
22 question mark there. There's some evidence based upon

1 models that MPAs can be analogous to controlled fishing
2 effort, which itself is of course one of fishing
3 mortality. So we have to be able to institute
4 protected areas in ways that could reduce fishing
5 mortality rates in many instances.

6 Reduce the need for stock assessment science.

7 We heard this at the NRC Committee discussions. And I
8 put a question mark next to it, because I'm not so sure
9 -- maybe we would reduce the need for conventional
10 stock assessment science, but we might increase the
11 need for other kinds of ecological science, and there
12 might be a tradeoff.

13 Recognize the uncertainties in science and
14 management and adopt MPAs as assurance. This is the
15 historical argument of course for utilizing MPAs.

16 In some cases, of course, the benefits could
17 be achieved by alternative management approaches.
18 Traditional management under many circumstances,
19 particularly combined with some innovative management,
20 such as spatial management measures, it all has a role.

21 The number, sizes, biomass and biodiversity
22 would be increased within MPAs. There's overwhelming

1 evidence of this. This is known. But, you know, when
2 I reported this to a colleague of mine, a famous
3 fisheries scientist, he said, well, that's a no-
4 brainer. Just don't fish, there's more fish.

5 But I'm going to take this to the next step.
6 There are implications fisheries units. There are many
7 fish out there being overfished or they're near
8 collapse. If you could conserve some of those fish in
9 a protected area and build out the spawning stock
10 biomass and significantly increase the stock fecundity
11 produce significantly more recruits, in addition to
12 protecting threatened and endangered species in these
13 areas, and the conclusion is there's overwhelming
14 evidence that numbers, sizes and biomass and
15 biodiversity increase is important. It may not be
16 rocket science in the long run to know that, but it's
17 very important.

18 And this is just an example showing scallop
19 stock under fish conditions when its fecundity is, the
20 scallops with ages that would be present in numbers in
21 an exploded population. And this is the Canadian part
22 of Georges Bank where this graphic comes from. And in

1 a reserve population, we can see how much increase in
2 the fecundity.

3 Some of you of course are fishery scientists
4 here, you know how variable recruitment is. We often
5 think recruitment isn't closely tied to adult stock.
6 We do know that there is a link, and promoting
7 fecundity like this is important.

8 Next.

9 We would also increase the age and size
10 structures. There's a rockfish study that tells --
11 Pailson has published one, and you can see the strength
12 the no-take zone data there, that the age structure and
13 size structure is greatly increased. The fecundity
14 then is increased in addition.

15 So there at least some benefits to perhaps
16 stabilizing this stock's reproductive capacity by
17 spatial management.

18 Most evidence of success in rebuilding stocks
19 and achieving results is observed within an MPA's
20 boundaries. The exported benefits to surrounding
21 regions, which is the usual goal, is less certain, and
22 dependent upon dispersible patterns of fishing and

1 behavior fishes in the open areas.

2 And I will repeat, this is an area of great
3 need of scientific study.

4 Economic benefits to fisheries from MPA
5 management may not be immediate or certain, and fishers
6 may have little incentive to support MPAs unless they
7 have the potential to restore the collapsed stock.

8 We had people on this NRC committee who I
9 think believed otherwise, believed that there was
10 strong support out there from most fishing communities
11 for MPAs.

12 And I came away from the study thinking that
13 there was some support, for lots of reasons, other than
14 enhancing fisheries management, virtually everybody in
15 the U.S. population supported the idea that we wanted
16 to protect habitats and we wanted to protect threatened
17 and endangered species and critical nursery areas, but
18 they were more skeptical about whether they MPAs as a
19 management measure, except when stocks are collapsing.

20 Then the NPR alternative becomes a very viable
21 alternative.

22 The real question and socioeconomic issues are

1 what happens to displaced effort. You know, if you
2 close off an area, all the effort just moves somewhere
3 else and the fishing mortality rate doesn't decline and
4 you haven't achieved anything. On the other hand, I
5 think that there are ways to institute spatial
6 management that can result in less effort, particularly
7 for heavily fished collapsed or near-collapsed stock.

8 The high discount rate in fisheries makes it
9 difficult for commercial fishers to accept MPAs as a
10 management tool when the performance is uncertain and
11 benefits are displaced far into the future. There's a
12 big risk on the part of the fishermen to be an advocate
13 for spatial management. Things are already bad. And
14 if you have to wait ten years to see if they're going
15 to be better, of course it's easy to understand where
16 it would be hard for a fisherman to support it.

17 Interestingly, I thought when I began to get
18 involved in the NRC committee on MPAs, the recreational
19 fishermen would be big supporters of protected areas.
20 And of course as all of us now know about recreational
21 fishing, they just have turned out to be some of the
22 biggest detractors of MPAs, that they worry about

1 fishery reserves limiting their access to what they
2 believe were traditional fishing areas when their
3 fishing effort is small and not damaging.

4 Can I have the next slide.

5 In Montreal in 1998, this Financial World
6 analogy, and they were saying unprotected areas is like
7 bet hedging. It's portfolio diversification and the
8 purchase of accidental liability insurance. They were
9 trying to reduce the risk of loss of assets.

10 Studies have come out since that time saying
11 that bet hedging and buying insurance are not the same
12 thing at all. So this is the kind of thing that
13 scientists argue about. I think in a sense you get the
14 point.

15 There's is a premium cost that is accepted to
16 achieve a reduction in risk, and that premium cost of
17 course is losing access to traditional fishing areas.
18 Bet hedging usually involves tradeoffs, and whatever
19 you're willing to accept when you institute MPAs to
20 benefit fisheries or biodiversity or other ecosystem
21 services.

22 A recent paper in December of 2004, McKelly,

1 et al, in Ecological Applications, posed this paper.
2 It's a multi-authored paper. It's a meta-analysis of
3 the performance of MPAs. And in come the major
4 conclusions, a lot of other conclusions. And
5 generally, the conclusion of the paper is that marine
6 protected areas, marine reserves, no-take areas are
7 beneficial for recovery of fish assemblages in heavily
8 fished areas, but they're not necessarily dramatic.

9 Individual species show wide variation in response
10 to protection. Only species that are fished and are at
11 high trophic levels show predictable increases in
12 abundance and biomass.

13 They found that on average, 19 percent of
14 species were negatively affected by the MPA protection.

15 These tended to be the little forage fishes and things
16 that were eaten by a big fish after they had instituted
17 MPAs. So I'm not concerned about this. It's not an
18 outcome that says MPAs are bad, but it's one that we
19 ought to know that is now unknown that we should expect
20 it that this will happen.

21 Fish assemblages under protection evolve over
22 time and outcomes are variable. Sometimes it takes

1 decades, as this meta-analysis has shown, and that the
2 evolution of change in assemblages and community
3 structure is still going on, and so are these MPAs that
4 have been around for decades. So it's evolution of
5 structure, assemblage, recovery can take decades.

6 They also found that it's only predictable in
7 tropical ecosystems. I don't know what that means.
8 What it may mean is that we've already damaged
9 temperate high latitude ecosystems to an extent that
10 fisheries have collapsed or habitats are very severely
11 damaged or that this means it's going to take many,
12 many decades for recovery, or that they won't recover,
13 or we just don't have enough studies at this point to
14 reach a firm conclusion.

15 Isn't it an interesting observation that, at
16 least I think I have made over the years, terrestrial
17 and marine reserves. Marine reserves tend to be more
18 than parks. Most terrestrial reserves I still think
19 about are parks. We talk about parks all the time. We
20 hardly ever call a marine reserve a park. Once in a
21 while we do it. But the benefits of terrestrial
22 reserves usually are presumed to accrue within the

1 reserve boundaries itself, and we're happy if they do.

2 On the other hand, the benefits marine
3 reserves usually are -- the objective usually is to
4 extend those benefits outside the reserves, to deliver
5 products outside of the area that is protected.

6 You know, I think back about five or six years
7 ago during the heavy snows in Yellowstone Park when the
8 bison and the elk wandered out of the park, they killed
9 them.

10 I mean, it's just the opposite thing of what
11 we're trying to do with marine reserves where, you
12 know, we don't want to keep them in necessarily. We
13 want them to proliferate and to move outside of them.
14 They were killed, by the way, because they had the
15 potential to transmit brucellosis, which was the
16 reason.

17 This is just a simple picture that shows how
18 marine protected areas might work. Three categories:
19 The special features, fisheries and biodiversity.

20 In the case of fisheries and biodiversity,
21 we're hoping that if we protect things locally that
22 things will get better outside the immediate area where

1 we're instituting the protection. And so the ecosystem
2 and fisheries will benefit regionally.

3 There are a lot of things acting on marine
4 ecosystems that we have to take into account when we
5 design and plan, and I've indicated some of these.
6 They may come in various scales in various ways beyond
7 I think what we talk about here, et cetera. All of
8 these things have to be thought about.

9 There are both external and internal factors
10 operating. One simple thing is that when you're
11 considering setting up an MPA, we probably don't want
12 to put it down, immediately downstream from a sewage
13 outflow.

14 Spillover. Sources and sinks. We talked a
15 lot about spillover. We hope it happens. This is the
16 export benefit that I mentioned just a minute ago. Can
17 MPA spillover support fisheries on the open fishing
18 grounds?

19 Well, we know the reserves must be located at
20 a site that supports the productivity of the stock, in
21 other words, what we call the source, so we know that
22 the most valuable sites in marine ecosystems, the most

1 highly productive ones, are likely the ones that need
2 to be protected.

3 Many people would hope that we could protect
4 those marginal sites that aren't very productive and
5 achieve big benefits. Well, it's not so likely. If we
6 want to get the best benefits from protection, we
7 probably need to protect highly productive marine
8 sites.

9 Does spillover occur? Well, there's some
10 direct and some indirect evidence that it does. This
11 is one of the Georges Bank protected areas off of Cape
12 Cod, and what you're looking at are the vessel tracking
13 tracks from scallop vessels coming out of New Bedford
14 and going back and forth through New Bedford.

15 And what you can see is that the heavy usage and
16 fishing tends to be right along the edges of this
17 reserve, which suggests that there is some spillover
18 and movement of scallops out of that reserve into the
19 open fishing area.

20 And they're not only for scallops. Both of
21 these slides come from Fogarty & Murawski's papers or
22 graphics that they've run for me. And you can see for

1 haddock, the catch created a record -- it's the highest
2 right along the edges of the reserve site.

3 One of the objectives of this reserve was to
4 promote recruitment of haddock. But here we're looking
5 at catchable size haddock. So I'm not quite sure what
6 this implies, whether it implies that significant
7 growth has gone on in the reserve area, and as these
8 fish that are growing are moving out, they're being
9 caught.

10 I'm not quite sure what it is, but it suggests
11 that spillover is occurring.

12 Sometimes we forget that designing marine
13 protected areas for spillover, there are some simple
14 rules that we might want to follow. Let's look at the
15 perimeter to area relationships. These might control
16 the probability of disbursement. So the shape and size
17 of the marine systems are heavily and strongly involved
18 in promoting spillover and probability of spillover.

19 We have the minimal perimeter to area
20 relationship in this circular area which you want to
21 design to enclose organisms. Or if you were really
22 trying to maximize the spillover or movement across the

1 boundaries, something of that shape might be more
2 important.

3 I live on an estuary on the Chesapeake Bay,
4 and interestingly on the Chesapeake Bay, we have a big
5 Chesapeake Bay program. A large part of the management
6 takes place in the watershed and that's largely
7 classified as spatial management.

8 We talk about forested areas and urban areas
9 and agricultural areas and different kinds of
10 agricultural areas, and everything is zoned and set
11 aside for certain kinds of activities and other kinds
12 of activities are prohibited.

13 But in the Chesapeake Bay itself, there are
14 some spatial management measures, but they're minimal.

15 And they're trying to work on that now. Like you,
16 we've got committees and panels to set up to look into
17 the possibilities for marine management areas and
18 spatial management to be used more effectively in the
19 Chesapeake Bay.

20 And I'm not sure that this slide is really all
21 that pertinent, but spatial management is part of
22 fishery ecosystem planning, and we're also involved in

1 doing a lot of this in the Chesapeake Bay and produced
2 some fishing ecosystems plan. And spatial management
3 is in large part a problem of scales, what scales to
4 work on, and it's also a problem of boundaries,
5 geographical, jurisdictional, institutional and
6 practical.

7 So spatial issues are coming at us all the
8 time as we try to improve the management of estuarine
9 resources.

10 And this -- I'm not going to dwell on it, but
11 there are lots of tie-ins of particular habitats, and
12 these seem to be more common in coastal and estuarine
13 areas than in the coastal ocean or oceanic areas of
14 course that one could designate for potential
15 protection through spatial management.

16 And habitats that serve as critical links
17 between terrestrial and aquatic ecosystems. Wetlands,
18 nesting beaches for birds, turtles and horseshoe crabs
19 are examples are critically important and can be
20 addressed probably best by spatial management
21 techniques.

22 There's another kind of spatial management

1 technique that is being instituted now in the
2 Chesapeake Bay, and these are corridors, some migration
3 corridors, but in this case -- the female blue crabs,
4 which tend to migrate down the center of the bay in
5 deep waters.

6 In this case, the fishers accepted this kind
7 of management in Virginia, because the alternative was
8 to accept effort controls that would achieve at least
9 in theory the same effort reduction and reduction in
10 mortality rate on female crabs.

11 So this also implies that we've often thought
12 that those kind of organisms that are tied to a
13 particular substrate, reef fishes or reef organisms,
14 are most likely to benefit from MPAs. And I think
15 that's true. That is true.

16 But there is the potential to manage lots of
17 other kinds organisms, including pelagic species, by
18 managing migration corridors in particular times and
19 places and instituting spatial management rather than
20 directly controlling effort for catches to achieve the
21 result.

22 The recent workshop on Chesapeake Bay, and I

1 suspect that we would have gotten a similar result if
2 we had done this nationally, these three issues were
3 raised repeatedly by stakeholder participants in this
4 workshop on proposed expansion of spatial management
5 approaches of the day:

6 Access. Concerned about being denied access
7 was a major concern that was expressed.

8 Permanency. Both recreational and commercial
9 fishers very, very concerned about MPAs or reserves
10 being set up as permanent management features. The
11 question is, why should they be any different than any
12 other management technique? Why shouldn't we evaluate
13 them, and if they prove to be effective, keep them? If
14 they aren't effective, replace them with some other
15 kind of management. Or modify the spatial management
16 measure.

17 For many, the third one was the need for
18 science-based recommendations. That even the
19 stakeholders who were most vociferous in their concern
20 about access and permanency acknowledged that if it
21 were science-based recommendations to support them,
22 fishery management by protected areas, that they could

1 be convinced that that was the appropriate management
2 procedure.

3 Well, permanency, access and freedom to fish.

4 As I said, fishers are concerned about spatial
5 management based on insufficient science, that limit
6 access, and that may be permanent.

7 Recently, legislation in the USA known
8 popularly as Freedom to Fish Acts are being proposed,
9 and in fact, one was enacted in Maryland last year
10 about the time we held this workshop.

11 It was interesting that fishery managers at
12 the workshop looked at it as a victory, because it now
13 gave them legislation and acts that allowed them to
14 establish marine protected areas that they didn't have
15 previously.

16 But recreational fishers also looked at it as
17 a victory because the guidelines to establish those
18 protected areas was so narrow and restricted that it
19 was going to be hard to institute a marine protected
20 area.

21 So both declared victory in the workshop. I
22 thought it was interesting.

1 DR. BROMLEY: We should be so lucky with our
2 report.

3 DR. HOUDE: Yeah. The timeframe for spatial
4 restrictions should be appropriate to the management
5 goal. Many marine protected areas probably should be
6 long-term or permanent to maximize benefits,
7 particularly ecological services, the biodiversity
8 kinds of objectives.

9 But in some cases, temporary closures or
10 restrictions would be sufficient to protect habitat and
11 reestablish species.

12 We have to keep in mind that there is this
13 hierarchy of spatial management that can be instituted
14 and we ought to be considering. Spatial management
15 alone was generally going to be insufficient to restore
16 and protect habitats.

17 DR. BROMLEY: You've got about five minutes,
18 Ed. Where are you in your sequence of slides?

19 DR. HOUDE: I'm still quite a ways. I thought
20 I had about 45 minutes but we started late.

21 DR. BROMLEY: Okay.

22 DR. HOUDE: I can move fast.

1 DR. BROMLEY: Yeah, we did start late. You're
2 right.

3 DR. HOUDE: Next.

4 Planning is mostly hierarchal or incrementally
5 inclusive process, and we tried to outline the
6 importance of this and the way to do it in the NRC
7 report.

8 One of the important conclusions that came out
9 of it was to identify and choose sites that had the
10 highest potential for implementation. This may sound
11 like giving in and not standing up for what is the best
12 area or the best time and place for MPA, but in many
13 instances I think establishing a site that might not be
14 the absolute ideal site probably is a better thing to
15 do than not getting a protected area at all.

16 Next.

17 Okay. I had a slide in here on size, but it
18 seems to have -- the question of how big MPAs should be
19 has often come up. And the conclusion that we came to,
20 at least in the NRC committee, was that the optimal
21 size has to be determined by each location and by each
22 objective that we have from setting up protected areas.

1 So management needs and goals, the quality and
2 amounts of critical habitats, and the levels of
3 resource use are important.

4 Location should be guided by, again, by the
5 overall management objective. In fisheries, the
6 success of MPAs depends on the characteristic of the
7 site, but also importantly on behavior of fishers. Jim
8 Weyland and others have shown this quite conclusively
9 that if fishers are going to increase their efforts in
10 areas outside of the MPA, it's uncertain that the MPA
11 would be a success.

12 How much is enough? And, again, I just want
13 to point out that this depends upon the goal and the
14 desired outcome. At one of the scale, for instance, if
15 your objective is to preserve a single stand of eel
16 grass in a critical habitat, then relatively small MPA
17 may suffice.

18 On the other if you want to preserve the
19 capacity of production of submerged aquatic vegetation,
20 then you may be thinking on areas at a completely
21 different scale.

22 Comparing conventional fisheries management

1 and special approaches. The conventional single
2 species management would generally regulate the catch
3 or regulate the effort. These are the two basic ways
4 that we manage fisheries.

5 And the reference points in conventional
6 management usually are some measure of spawning and
7 fishing mortality rates that are being generated or not
8 to be generated.

9 Next.

10 Spatial management. We're looking to conserve
11 communities of organisms, not just the target species,
12 but conserving habitat. It requires an even better
13 knowledge of the life history of species that are
14 targeted for conservation and management. We need to
15 know more about the dispersal of their foods, trophic
16 relationships, habitat requirements.

17 Setting up spatial management is going to
18 facilitate adaptive management as illustrated in the
19 draft report where you talk about the importance of
20 adaptive management resulting from spatially explicit
21 management measures.

22 And by setting up these protected areas, we're

1 going to learn something about the reference sites, and
2 that these are going to be the experiments that are
3 going to tell us whether some change in management and
4 some adaptive approach to management is likely to be
5 effective.

6 So it's a step towards ecosystem-based
7 management as well.

8 Enhancements can come in many forms as a
9 result of MPAs, so we're always, of course, wondering
10 what the performance is going to be when we set aside
11 an area.

12 Assuring the sustainability in the face of
13 uncertainty of course should be a goal. Some benefits
14 we have to realize may not be attained until years
15 after implementation of MPAs. Kelly et al pointed that
16 out in his recent paper.

17 Important results sometimes happen. Sometimes
18 we get lucky, but oftentimes we don't, and we shouldn't
19 expect it. Moreover, the MPAs may not always achieve
20 the dramatic success that some people hope for. But
21 when implemented along with conventional or spatial
22 management, the potential for success I think it is

1 greatly enhanced.

2 So in the context of the question, do MPAs
3 enhance fisheries' performance, I think the answer is
4 likely to be yes.

5 There's another slide from Steve Murawski of
6 the Georges Bank closed area. You can see that in the
7 closed areas, scallop productivity, you can see how
8 fast it's gone up. And in the open areas, it also went
9 up and when part of the total system was under
10 protection.

11 And when we look at the overall density of
12 scallops throughout the whole area there, you can see
13 that it looks like the density of scallops has gone up.

14 You say, well, that's not proof that it helped the
15 fisheries. Well, New Bedford is now the number one
16 port once again in terms of fisheries landings in the
17 United States, which it hadn't been. It had ceded that
18 role to Alaska ports for years. But with the
19 reestablishment of the scallops, in time, in large part
20 due to these protected areas, a big economic boon is
21 the consequence.

22 Next.

1 As far as performance is concerned,
2 expectations are that if we enhance the stock within
3 the boundaries and promote spillover that we'll get
4 some results. We have a number of criteria.

5 And the point I want to make is that we need
6 to evaluate performance. The pre-implementation design
7 is very important to allow us to evaluate.

8 I'll move fairly quickly through the last few
9 slides.

10 Monitoring is essential. I've noticed in your
11 document, you're also saying that evaluation and
12 monitoring is essential. And that's good that we're
13 all on the same track here and recognizing that we need
14 to determine how effective spatial management is. And
15 we need enforcement as well to make marine protected
16 areas effective.

17 What about nonperformance? Well, failure to
18 meet objectives requires adapted and timely actions.
19 We set timelines for MPA policies just as we would for
20 any other kind of management. Possible actions for
21 nonperformance, modifying the MPA, debating it, job
22 accessibility.

1 Lauren's going to put this talk up on the web
2 so you can get to this. I'm not going to read all
3 these benchmarks, but I've thought a little bit about
4 what are the kind of measures that we ought to be able
5 to make to know whether an MPA is effective?

6 And so I've listed a bunch of benchmarks here
7 and indicators that might believe useful to help
8 evaluate. And I'd refer you to them to look at them in
9 detail as you do your work.

10 Next.

11 And just to expand on this a little bit here,
12 to give some examples of the kinds of benchmarks that
13 could be useful in spatial management that you might
14 wish to consider.

15 Next.

16 This next to the last slide basically just
17 says that I think we ought to combine conventional MPA-
18 based management, with the two together give us a real
19 powerful way to manage resources and control that
20 overcapacity and excess and to protect the habitats and
21 biodiversity that we want to conserve at the same time.

22 Implementation of MPAs we've recognized

1 explicitly the importance. We've got to protect those
2 habitats and address the need to preserve the structure
3 of the ecosystems.

4 DR. BROMLEY: Good. Thanks.

5 (Applause.)

6 DR. BROMLEY: Thank you very much. And I'm
7 reassured you will -- you have this on your web site,
8 and Lauren will have it and we can refer back to it.
9 Is that right?

10 MS. WENZEL: Yes.

11 DR. BROMLEY: Wonderful. I think in interest
12 of giving time to our next speaker, why don't we hold
13 comments, let Patrick Christie go, and then depending
14 on how the time works out, we'll have a chance for
15 discussion with both.

16 DR. CHRISTIE: I know it's been a long day and
17 that's also a hard act to follow. So I'm going to move
18 rapidly through my presentation.

19 I'm Patrick Christie. I'm an Assistant
20 Professor at the School of Marine Affairs and also I'm
21 a joint friend with the Jackson School of International
22 Studies, and I work primarily in the Southeast Asia

1 Studies there.

2 So my talk today is entitled Society and MPAs,
3 Understanding the Human Inventions. I'm thankful for
4 actually having the opportunity to come and talk to you
5 today, partly because I'm passionate about this issue
6 but also I think it's a very timely issue.

7 Next please.

8 I'm going to be talking about marine
9 conservation, MPA discourse and the literature. I'll
10 be talking primarily about the Philippines where I do
11 my empirical work, but while I'm talking about the
12 Philippines, please think about the policies relevant
13 to the U.S. context.

14 I think that there's quite a few things that
15 are very relevant. Again, I'm going to be speaking of
16 empirical findings especially on the social dimension
17 side, I really think we need to take it to the next
18 level and start doing a lot more empirical work.

19 And I'll be talking about marine protected
20 areas and social design criteria and possible
21 suggestions for research.

22 So I'm not going to be going into detail about

1 this. This may be the definition that you abide by, or
2 you may have other ones as well, but this is a commonly
3 offered one by the IUCN regarding marine protected
4 areas.

5 What I will highlight, though, at the bottom
6 of the slide is that in the Philippines. they are
7 frequently quite small. Interestingly enough, they
8 call them sanctuaries, virtually no-take areas, and
9 they call the reserves the area that you can fish in.
10 And these generally small, small. They're generally
11 areas where fishing is prohibited but recreational
12 diving is allowed, which is an important part of my
13 story today.

14 You should recognize that there are literally
15 hundreds and hundreds of these scattered throughout the
16 Philippines. And while many people recognize the
17 importance of the Philippine experiment with protected
18 areas, estimates now of success rates are around
19 between 10 and 20 percent only. And so the question is
20 offered, why are there hundreds of these and yet the
21 success rate is relatively low?

22 Slide please.

1 So there's a lot of things -- Lauren was
2 asking me to talk about what might know about regarding
3 the social and human dimension of these things, and
4 this is a very cursory list. So please don't think
5 that this is all we know or all we don't know.

6 We know that having a constituency for marine
7 protected area is fundamental. That without that, it's
8 a no-starter.

9 We know that participatory processes are
10 fundamental to avoid backlash. And we have empirical
11 findings from the U.S. as well as developing country
12 contexts. Increasingly I think we'll find that
13 conflict derails management processes, and a lot of
14 research is showing that now, the graphic research
15 opportunity to do in the future.

16 We don't know quite a bit about the social
17 dimension, the human dimensions of this work. I
18 brought some reprints with me and I'll put them out by
19 the door. A group of us, including Bonnie, Dan, Suman
20 -- and I hope I'm not forgetting anyone -- co-authored
21 a paper that came out in Fisheries. We were invited to
22 submit it to Science. We submitted the paper. We were

1 summarily rejected without review. But I think most
2 science papers are like that.

3 And then we ended up putting into Fisheries.
4 And it was talking about human dimensions research
5 agenda for marine protected areas. We're a tenacious
6 lot, and so we're going to put some empirical findings
7 on that we're going to get out.

8 So, we don't know a lot, and we have a
9 research agenda that's emerged from the work that
10 Charlie and others have supported. We're -- I think
11 personally we have a lot to learn regarding how to in
12 fact develop effective processes. We know they're
13 important, but we don't know much about the design of
14 them in different context.

15 We also don't know quite a bit in the various
16 contexts about how people perceive the ocean and how
17 they perceive marine protected areas in particular. I
18 think that's quite important.

19 And actually, and I'm raising this to be a bit
20 provocative, which is I believe in multiple methods. I
21 believe in triangulation of methods. I believe that
22 there is an important role for modeling. I would

1 suggest that most of the social science research that's
2 being done is based on economic modeling, and I would
3 pose the question as to whether modeling is really the
4 way to develop optimal design.

5 Slide please.

6 So there are diverse goals for marine
7 protected areas. We have biological ones, and you are
8 all familiar with these lists. We want to protect the
9 habitat, the biodiversity. We want to protect
10 ecosystem function. We want to restore it, restorate
11 our ecosystems in some cases.

12 Also, we want to sustain cultures and
13 religious practice. We want to have places for people
14 to enjoy the ocean. We want to ensure particularly in
15 developing countries that there's food secured.
16 Between 50 and 70 percent of people's protein in the
17 Philippines come from reefs. This is not
18 insignificant, and we are playing with fire if reefs
19 continue to collapse in the Philippines.

20 People feel a great deal of pride when we have
21 an MPA that is successful. We also sometimes, and many
22 times in the Philippine context, they see MPAs as a way

1 of making government accountable, saying we expect
2 something from you and we expect to have you help us
3 engage in this effort.

4 And frequently in the Philippines people talk
5 about marine protected areas as a means towards
6 empowerment. I've had Filipino conservation
7 practitioners say to me, would I do this sort of work,
8 working for the Haribon Foundation? It's not about the
9 coral reef and about the fish. It's about empowering
10 people. The fish and the corals are secondary.

11 Slide please.

12 And these are conservationists. So this is a
13 bit of a review of the literature. Read all about it.

14 Influential papers declaring the worldwide ocean
15 decline. We all know these papers quite well by people
16 like Daniel and Mayers and Vern and Jerry Jackson.

17 Slide please.

18 And these influential papers and reports
19 identify MPAs as important tools to address ocean
20 decline. So you perhaps know these as well, and people
21 who have advocated for marine protected areas in
22 influential journals in many instances.

1 Slide please.

2 In response to this, ambitious targets have
3 been set. I was at the World Parks Congress in South
4 Africa where they said ten years from now, ten percent
5 of the world's oceans will be in marine protected area
6 status.

7 I always pose the question, how are we going
8 to realize that, and what are the social dimensions of
9 this? How do we go forward with that? Sometimes
10 that's answered, sometimes it's not.

11 But these sorts of agendas are very
12 influential and I think very important and they're
13 coming from the NGO world, they're coming from
14 government, they're coming from the donor world, et
15 cetera.

16 So ambitious targets are being set. Maybe
17 that's a good thing.

18 Slide please.

19 Now I pose this as a sort of a provocative
20 slide, which is we all know of papers by Daniel and
21 Pauley and others, but how many of us know all of these
22 papers? About the social and the perceived dimensions

1 of marine protected areas? Do these kinds of papers
2 have the same cachet, and if not, why not?

3 Slide please.

4 And some of the analysis suggest that MPAs may
5 have a complex, sometimes troubling social dimension.
6 These are some ethnographic research based on years and
7 years of empirical research.

8 I have written a paper recently in the AFS
9 proceedings that came out of the Quebec City meeting
10 talking about marine protected areas as biological
11 successes and social failures. The title is
12 intentionally provocative.

13 I, by the way, spent three years as a Peace
14 Corps volunteer working with a committee to establish a
15 marine protected area. I write about them because I
16 think they are a very important tool, and I think in
17 many instances they can be very useful. But I think
18 sometimes we're not careful enough in terms of
19 unpackaging all the associated dimensions of this,
20 especially the human dimension.

21 Okay. Slide.

22 And this has led to analysis arguing for a

1 cautious approach to marine protected areas and other
2 protected areas, thanks to people like Tundy and
3 others, but also this very hard hitting recent article.

4 You should really read Chapin's piece, which
5 has generated an enormous amount of controversy. I
6 don't necessarily agree with all the points that he
7 raised regarding the treatment of indigenous people in
8 Amazonia, but it raises some very provocative points,
9 and responded to by all the heads of the NGOs and the
10 foundations. Important things to consider.

11 So this just sort of nests nicely with what I
12 was saying, which is what, from my perspective, what
13 dominates the discussion thus far. I would suggest
14 that this very influential slide here has dominated the
15 discussion. It's a very important one about the
16 spillover and the like, but at least in coral reef
17 systems --

18 Click please.

19 -- I would suggest that this is actually quite
20 elementary. If you don't fish, the fish grow larger.
21 Some adults may leave the reserve, and the larva
22 certainly do.

1 Now this -- I'm speaking about coral reef
2 systems here that I know very well. I've seen this
3 empirically. San Salvador Island, where I spent three
4 years, had fish, mostly pomocentra and stansel fish and
5 the like. I almost was bit by a shark after two years
6 of having an MPA there. You would have never even seen
7 a shark in these areas prior to that.

8 So I've seen, and I actually know the groupers
9 in these areas by name practically. And you see these
10 kinds of rapid recoveries in heavily degraded coral
11 reef systems.

12 Slide please.

13 So let's now look at the MPA discourse a
14 little more carefully. This is the College of Ocean
15 Fisheries Sciences. This is where I live as an
16 assistant professor, and we have ecology, fishery
17 science, we have oceanography and the school of marine
18 affairs.

19 Click please.

20 And I would suggest right now if we review the
21 pure literature regarding marine protected areas -- in
22 fact, I was asked to review a piece by a French author

1 reviewing the literature on MPAs. They came to this
2 conclusion, that most of the literature is concerned
3 with ecology and fishery science dynamic,
4 oceanographic. But the circle tends more towards those
5 squares and less towards the social and human
6 dimensions.

7 Click please.

8 And I'm hoping that with a little bit of help
9 from my friends that we'll actually move the discourse
10 and balance it out a little bit.

11 So what are the framing questions? What's the
12 cause for the degradation of coastal ecosystems and
13 near shore marine environments and declines of
14 associated fisheries? Our management frameworks have
15 increasingly leaned towards large MPA networks,
16 assistance based management, particularly in the
17 Philippine context.

18 Who has forwarded the MPA agenda and why?

19 Why do management processes break down over
20 time?

21 Is the current form and scope of research
22 having the desired effect?

1 I was just asked by the Packard Foundation to
2 review the feasibility of ecosystems based fisheries
3 management. If you're interested, I can provide some
4 free copies of that report that we did with Dave
5 Bruhardy and various others from various universities.

6 But today I'm going to be talking about the
7 feasibility of MPAs and long-term sustainability.

8 Slide please.

9 So this is where I do most of my work. This
10 is the Philippine Islands. It's in an archipelago of
11 over 7,000 islands.

12 Slide please.

13 And I'm not going to go into all the details
14 of this slide, but many of us who work in developing
15 country context recognize these kinds of scenarios.
16 Over 86 million people living in the Philippines, the
17 Philippines about the size of Arizona. Population
18 below the poverty line about 40 percent. External
19 debt, \$57 billion. A long colonial history. Perhaps
20 the debt really is a legacy of that colonial history.

21 Slide please.

22 People have incredibly important relationships

1 with their coral reef systems. You have women gleaning
2 from coral reefs. You have men making bolos or fish
3 traps. You have the world's longest outdoor grilling
4 of milk fish in the world in Manilla. And these are
5 annual values of Philippine are approximately about
6 \$1.1 billion.

7 So people have a very important, and again,
8 people generate a lot of their protein from these
9 systems.

10 Slide please.

11 This is a slide from Alan White, who I work
12 with quite a bit, and Alan always concludes by saying,
13 boy, this is a really complicated environment to work
14 in. We have illegal fishing, deforestation. We have
15 water quality problems. We have intrusion of illegal
16 and undocumented boats, et cetera, et cetera. So it's
17 really a difficult place. We could generate a similar
18 site for the United States of course.

19 Slide please.

20 And we have a global commerce of the worst
21 kind. So people frequently like to think, well, the
22 Philippines is out there somewhere. I would suggest

1 that in fact we are a part of. Of course we were
2 colonizers of the Philippines, and we also are main
3 consumers of the live fish trade, which is caught
4 largely with cyanide to come to the U.S. markets.

5 So these systems now are inextricably linked,
6 developing country/developed country, first world/third
7 world, whatever you want to use the terminology.

8 Slide please.

9 So I'm now going to move into the empirical
10 findings, and I'd like to thank the group of people who
11 I've had the pleasure of working with, people like
12 Richard Pollnac, Bob Pomeroy, Alan White, Ken Lowery,
13 Barb Hershman and various colleagues from Southeast
14 Asia and the Philippines and Indonesia. We had funding
15 from the National Science Foundation and from the David
16 and Lucille Packard Foundation for three years of
17 research.

18 And this is a slide of where we worked. We
19 chose sites all over the Philippines that had diverse
20 costal management of the MPA models in place, cultural
21 groups, donors who supported this, various implementing
22 agencies.

1 Slide please.

2 And this is my slide that I use when I teach
3 methods at the University of Washington. We had
4 quantitative survey and research methodologies led by
5 Richard and Bob primarily working in 42 communities, 7
6 locations involving 10 Finnish coastal management
7 programs. We were studying why do these coastal
8 management processes in a marine protected area
9 management processes break down over time, especially
10 after donors withdrew their resources.

11 They did interviews, literally hundreds of
12 interviews in various locations. The idea is to
13 generate a broad understanding based on comparative
14 research. That's the power of social survey research
15 methods. This was complemented --

16 Once more, please.

17 -- by overlapping case studies using
18 qualitative and quantitative research in these various
19 realms -- legal, institutional, economic and
20 biophysical research. So the notion was to have a
21 nested research design.

22 And the notion of using detailed ethnographic

1 and qualitative data was to provide sort of the meat on
2 the bones, if you will. You get the details if you
3 explain why you get these kinds of statistically
4 important results and how can we explain those.

5 Slide please.

6 Well, here I'm going to go and get a little
7 bit more provocative, and I would hope that people
8 don't take the message -- the message here is not that
9 I'm saying that MPAs are necessarily a failure. I'm
10 trying to walk this fine line between saying these are
11 very important ecologically and socially for people,
12 but they're very challenging to implement.

13 So I pose the question, is it possible for an
14 MPA to be both biologically successful and a social
15 failure? And if so, what are the implications for
16 long-term management success?

17 Slide please.

18 So this is where we're going to talk. I'm
19 going to talk about this area right here, which is a
20 Twin Rocks MPA. This is literally only about four
21 hectars of no-take area. There's a fishing community
22 here called Bellanoid, and there are two dive resorts

1 here for Filipinos as well as foreign tourists.

2 Slide please.

3 So in this area of Twin Rocks there's an
4 interesting story. From 1991 to 2000, monitoring and
5 enforcement and planning in this MPA was done with a
6 community-based MPA sort of framework. Community was
7 involved in all of these activities along the Haribon,
8 a very well known NGO area as well as scientists.

9 Subsequent to that, when Haribon's funding ran
10 out and a different NGO moved into the area, it moved
11 toward a science-based approach, not very participative
12 any longer.

13 Slide please.

14 This is an important slide. Actually, my
15 first two degrees are in conservation biology. I just
16 became interested in environmental sociology at the
17 Ph.D. level. So actually Alan and I and others
18 actually do the fish surveys ourselves.

19 And this is a remarkable set of data that we
20 have, which is longitudinal data going back to 1990
21 from various sites around the Philippines. And what
22 the take-home message is here -- I wish I had a pointer

1 -- is MPA was established here.

2 Watch this Twin Rocks, the blue line. It's
3 exactly the kind of trend line you want to see for
4 fish. And just outside of there, we have at least a
5 stable line here, but this is mean number of fish over
6 time. These are target fish, so these are things like
7 Blue Janets, Ceranids, all that good kinds of fish that
8 you want to be seeing in these MPAs.

9 And these are actually statistically
10 significant results. This line here is statistically
11 higher than the area outside of it and it's
12 statistically significant over time as well.

13 Slide please.

14 So, I'm not going to go into all the details.

15 If you're interested, I have the reprints from
16 articles that we've published. I also think we have 28
17 peer reviewed papers that came out of this project.

18 Coral reef cover is generally stable and
19 improving. Fish abundance and diversity is increasing
20 in Twin Rocks, which is strictly enforced. Twin Rocks
21 could be characterized as a biological success that
22 could justifiably be attributed to the resort owner

1 vigilance.

2 Can you go back one slide? I forgot an
3 important detail here, which is that the community was
4 involved here, and by the year 2000, the local resort
5 there said we don't think that the local community is
6 enforcing this stringently enough. We're going to take
7 this over. And they hired a guard effectively. And in
8 fact, the resort owner began to sort of chase fishers
9 off of this area, et cetera.

10 The community has a very different story to
11 tell about this. They said that in fact that things
12 had been sort of building up. I guess you could use
13 the build-up hypothesis, and then maybe it took this
14 long, according to Gary Russ's work to actually start
15 to see this build up of predatory fish.

16 But the fact of the matter is, is that one
17 plausible argument is that the reason you see the
18 biggest increase from '97 to 2001 is because the local
19 resort owner took over the management and it was no
20 longer a community-based process.

21 Slide please.

22 Twin Rocks is appropriately characterized as a

1 biological success. Is it a social one as well?

2 Slide please.

3 This is the outcome of that survey research.
4 Richard and I are hoping to submit this to Science
5 quite soon. And this is based on regression analysis
6 that Richard and I have been doing.

7 What we see here is the dependent variable is
8 MPA sustainability. The best predictors of that
9 dependent variable are participant impact, income
10 impact. Project involvement is the highest, is the
11 most significant coefficient, and project outputs.

12 And this very statistically significant. So
13 this is based on stepwise multiple regression, and
14 basically what we see here is that people -- if the
15 process is going to continue over time, people need to
16 feel engaged.

17 Slide please.

18 And then Richard, and I should put credit on
19 this on the bottom of this slide before you post it on
20 the website, Richard is very good at generating these
21 kinds of very complicated social issues.

22 I'm not going to go into all the details here,

1 but there's a lot of hidden variables. These are all
2 the correlation coefficients here. What we see here is
3 a very complicated story. Numbers of trainings being
4 statistically significant that are related to
5 successive alternative income, which is correlated with
6 MPA performance.

7 Compliance is correlated. Adaptive management
8 is correlated. So very rich food web if you will, a
9 human web if you will, associated with MPA's success.

10 Slide please.

11 And these are the kind of cool things that you
12 can generate through this kind of research. That's the
13 take-away message.

14 Qualitative research that I'm very committed
15 to has increasingly gotten more rigorous with the
16 application of software programs like Atlas TI.
17 People generally kind of characterize qualitative
18 research as very soft, opinionated. You can come to
19 any kind of conclusion that you want to.

20 I would challenge those kinds of conclusions,
21 particularly now that we can actually use these kinds
22 of software programs to code text information. We can

1 then use Boolean searches to ask if/and questions and
2 you can code the whole interview as female informant,
3 then you can code things like she commented about a
4 conflict, and then you can search your thousands of
5 interviews and say only give me quotation for women who
6 talk about conflict around MPAs, and it will give you
7 those quotations.

8 So this concept is very helpful for making
9 quality of research more rigorous.

10 Slide please.

11 So these are some quotations based on that
12 quality of analysis. The action of the resort owner.
13 Focus on action, not process. Resort owner one. These
14 are some interviews with that resort owner.

15 So what is important for me is enforcement of
16 the sanctuary, that's the issue. Social issues are
17 divorced from actual impacting or biological issues.
18 For me, those social issues are secondary.

19 Slide please.

20 Same resort owner. What I'm telling the
21 people of this community is for the reef we take care
22 of it. I spend many sleepless nights protecting the

1 sanctuary. I have to bear the burden of getting the
2 ire of these people from the fishing community. That's
3 okay, because as long as the fish are there. We'll
4 have to bribe people. I will resort to anything that
5 will prevent any direct negative impact to the
6 sanctuary.

7 Perhaps you've talked to people like that in
8 the United States.

9 Slide please.

10 So how is this perceived by the local
11 community?

12 Slide.

13 Struggle for ownership. Community leaders.
14 This is a person who dedicated six years of time in a
15 voluntary manner. Now since the resort owner is
16 established, the hotel owners are the ones who guard
17 and protect the sanctuary, but I think they already
18 took over the sanctuary and that's the problem.

19 In my interview, they'll be angry with me.

20 Patrick: What's the difference if they protect the
21 sanctuary? It's the same, but the only thing is that
22 the sanctuary is for the community. Now they, the

1 resort owners, have already taken it over.

2 So issues of control, very important.

3 Slide please.

4 So with success you actually have unintended
5 consequences, the fisheries, but there's good
6 management. Our coral reefs bloom, and that's why
7 divers came in and resorts came in, but community-based
8 management also vanished.

9 And we link this, this social theory regarding
10 social psychology, how people perceive resources and
11 perceive success. And what happened in both of these
12 cases, and particularly the person, the first
13 informant, is that she disengaged from the process.
14 After six years, she disengaged, because she said I'm
15 tired of all the conflict. I've had too many meetings,
16 et cetera.

17 We can also look at social networks and
18 whether the resort owners are heartless networks or
19 not. I would suggest that these kinds of quotes and
20 the quotes by the resort owners, you can tie it
21 directly to world views. I did extensive interviews
22 with people from various NGOs in the area.

1 Divergent perspectives, world views, based on
2 social construction of the ocean. And diffusion of
3 innovation. We can apply theory and frame residents
4 from social psychology theory and see whether or not
5 this as a technology resonates with people.

6 So there's a lot of theory that we can apply
7 to MPAs that explains the dynamics.

8 Slide please.

9 So what happens when the local people are
10 marginalized in the community-based process? Well, I
11 think they disengage, they don't comply, there's
12 poaching and eventually environmental decline.

13 And actually I highlight this one for many of
14 my colleagues. Because if really all you really do
15 care about is the fish and the corals, you need to take
16 this stuff very seriously, because you cannot have
17 those kinds of biological successes unless you take
18 these things seriously.

19 Slide please.

20 And this is in fact what happens in many cases
21 in the Philippines. These are well known data from
22 Russ in Alcala. All the trend lines are going up.

1 Alan and I did research, and you know Alan,
2 he's a Pew Fellow. He's a proponent of MPAs. We did
3 this work in Bala Casad, which was established at the
4 same time as Aqua Island and the same process.

5 And what we see here over time is a dramatic
6 increase in abundance of fish over time and a
7 tremendous decline almost immediately, and the reason
8 being it seems to me is because the local Philippine
9 tourism authority took over the community-based process
10 and told the people that their efforts were no longer
11 needed.

12 And those people who had dedicated years of
13 volunteer time became the first people to poach those
14 MPAs.

15 Slide please.

16 And I'm almost done here. So I think this is
17 one of the questions to raise here about scale. This
18 is evoking the questions regarding ecosystem-based
19 fisheries management that I've been thinking about for
20 the Packard Foundation.

21 Is it ecological -- so now I'm going to talk
22 about large marine ecosystems.

1 Click please.

2 And people are talking about managing the Sou
3 Souoacie area. This is a picture of Palowan in North
4 Borneo. We should be managing on this scale.

5 Slide.

6 We can just click through these -- using a
7 large marine ecosystem approach.

8 This is Tubbataha World Heritage Center, which
9 is a very effective marine protected area, has some
10 issues with compliance. And we have community-based
11 marine protected areas, and we have over 400 of them in
12 the Philippines with only about a 10 percent success
13 rate.

14 I think we need to think really carefully
15 about can we really, when we have a low success rate,
16 really go up to this scale of large marine ecosystems?

17 And is that really institutionally feasible in many
18 contexts?

19 Slide.

20 So social design criteria for marine protected
21 areas.

22 Proceed with caution. You don't get many

1 shots. I think that doesn't matter what context you're
2 in.

3 Context is fundamental, defining which MPA
4 model is likely to succeed. We need to be very careful
5 about the kinds of models and how we apply them. We
6 need to be very careful about context, history and
7 culture.

8 Engage for the long term. The most successful
9 marine protected areas in the Philippines like Apol
10 Island have had community, institutional, academic,
11 institutional engagement over decades. It takes a
12 long-term commitment.

13 Partnership must be based on respect and
14 trust. If people don't trust institutions when they
15 come in, it will become very difficult to have a
16 collaborative process over time.

17 I would suggest that optimal -- ecological
18 optimal design is not necessarily the social optimal
19 design, and we need to unpackage that. When we're
20 looking at the LME, that's very sort of convincing on
21 an ecological, using ecological rationale, but for many
22 contexts, it's not feasible institutionally.

1 And the scale is humanly understandable,
2 institutionally appropriate levels.

3 Slide please.

4 So how is this relevant to the MPAs? Okay.
5 While the context is distinct, the constituency
6 interaction is influenced by culture and physical
7 conditions are quite similar, I did some recent work
8 for the northwest Hawaiian Island issue, and there was
9 all kinds of interesting discussions about Hawaiian use
10 of these areas and interaction between
11 environmentalists and the Hawaiian constituency there.

12 We all know the position paper from the
13 Northwest Hawaiian Islands Fisheries Commission. So
14 culture and history is important and it basically has
15 big implications for how people perceive MPAs and
16 whether they're going to get behind them in the U.S.
17 context.

18 Also very near and dear to my heart in the
19 Puget Sound area is the San Juan Islands volunteer MPA
20 process, and there's a desire in the United States to
21 start these kind of community-based participatory
22 processes.

1 I would actually hope that we actually read
2 the literature and talk to people from the Philippines,
3 for example. They've been doing this stuff for 25
4 years. Of course the context is very distinct. A lot
5 of them -- in fact, I did compare research up in the
6 San Juan Islands. And in fact, if I didn't know those
7 people were from the San Juan Islands, I could have
8 sworn it was informants from the Philippines.

9 Conflict. We know the issue of the Channel
10 Islands. So this is ubiquitous when it comes around
11 MPAs, and we need to really unpackage it and understand
12 it.

13 And I would also suggest to you that there's a
14 high cost ignoring the human dimension. This happened
15 in the Philippines. It ignored human dimensions in
16 some instances. We've seen it in the Florida Keys. We
17 all know Billy Causey's talk, a very important one, how
18 he had to reset the clock to basically get it all
19 started in the right direction.

20 I'd also suggest, and this is a bit esoteric,
21 but the notion of the role of U.S. organizations
22 internationally MPA discourse, technical assistance and

1 funding, NOAA and the foundations, the Packer
2 Foundation, for example, were involved in a global
3 discourse of these things.

4 And we're influencing this discourse
5 internationally. We're sending over people as
6 technical assistance and actually we're being
7 influenced by that. So that's why these kinds of
8 international case studies are actually quite pertinent
9 to your discussion.

10 Slide.

11 We can go through these pretty -- okay.

12 So I would suggest two things. Please do read
13 our silly essay that we wrote for Fisheries. I think
14 there's some important points there. Of course read
15 the social science research agenda that was developed
16 out of the workshop in California.

17 If there's people in this room that want to
18 collaborate on this kind of thing, particularly I'm
19 interested in studying comparable marine protected
20 areas in the Puget Sound area and particularly an area
21 called Maury Island.

22 I'm particularly interested in enforcement and

1 coercion and compliance issues, particularly around
2 Tubbataha. It's a very interesting case study right
3 now regarding enforcement issues.

4 As these remote Atolls, for example, in the
5 Philippines become the few remaining pristine
6 ecosystems, there's very valuable organisms in there.
7 Last year a Chinese fishing vessel showed up with 120
8 people in it and they basically gave the guards an
9 option, either we kill you, or we take the fish out of
10 here and we send them to Hong Kong.

11 It's an interesting story. The fact that they
12 did the right. They said, okay, go fish. And then
13 they called in the Navy and they actually captured
14 these people and put them in jail. And this is in
15 territorial waters controlled by the Philippines.

16 Appropriate biological and social scale. I'm
17 very interested in this question regarding management.

18 And one of the things I'm actually very
19 interested in trying to do is unpacking epistemic
20 communities. Who is behind the MPA agenda and who's
21 against it? The donors, the scientists, the advocates,
22 the advocate scientists.

1 All these kinds of people I think really, not
2 to be overly critical and to do a critique piece, but
3 basically try and understand where is this stuff coming
4 from.

5 Slide please.

6 And I think we need to do in this -- I won't
7 go into detail about it here -- but in the paper I
8 think we point out that there's both mandated and
9 sponsored research that needs to be done; how can we
10 design these things better so that they work better?
11 But we also need to do mandated independent research
12 that basically looks at the underpinnings, the
13 assumption behind these things. Why are MPAs
14 important? Who's winning? Who's losing? What are the
15 social justice issues here? And those I would actually
16 suggest are somewhat mandated independent research,
17 unpackaging the MPA agenda.

18 Slide please.

19 And I would suggest, I'm always an advocate
20 for various research approaches, and we talk about this
21 a great deal in California, using both quantitative and
22 qualitative methods. But I would also suggest that we

1 need to use participative methods, because not only do
2 they engage us in generating really meaningful data
3 sets, but also they could engage people in the
4 management process.

5 Thank you very much.

6 (Applause.)

7 DR. BROMLEY: Wonderful. Okay. We have
8 probably 15 or 20 minutes for follow-up questions or
9 comments.

10 Michael?

11 DR. CRUICKSHANK: Dr. Christie, that's one of
12 the most elucidating talks I've ever heard on the MPA
13 issue, and I was fascinated with it. I had a question
14 here about you said we are playing with fire if we let
15 the reefs in the Philippines go. And that leads me to
16 say how much inference do we as outsiders have in that
17 country? And what does the Philippine government
18 influence in this issue?

19 DR. CHRISTIE: Yeah. Actually, after I said
20 that, I was going to correct myself. But it's a very
21 good point, and I think pronouns are very important.
22 The "we." Who is the "we?"

1 The fact of the matter is, is that of course
2 ultimately it is a decision of the Filipino people what
3 happens to those reefs. I would offer you the caveat,
4 however, that most of the funders, most of the programs
5 that establish marine protected areas -- not most of
6 them. I would say at least, well, a great number of
7 them are actually funded by the Packard Foundation,
8 funded by the Gordon Moore Foundation increasingly.
9 Funded by USAID.

10 USAID, U.S. taxpayers' money has invested tens
11 and tens of millions of dollars in the Philippines. We
12 are on the leading edge of establishing integrated
13 coastal management there, marine protected area
14 networks and the like.

15 And so there are many people as Americans who
16 have had a great deal of influence in the Philippines,
17 as well as the Filipino people as well.

18 Now the reason -- the point of playing with
19 fire is I was just trying to be raising the point that
20 in our context here in the U.S. of course we, for
21 example, don't want to see salmon decline. We don't
22 want to see these species disappear, and we don't want

1 to see orcas disappearing from Puget Sound and the
2 like.

3 But in Puget Sound, I doubt if people are
4 actually going to lose 70 percent of their protein if
5 those runs decline. And this is how dire the situation
6 is in Southeast Asia. And people are actually now
7 beginning to increasingly frame integrated coastal
8 management and marine protected areas, the discourse is
9 shifting away from sort of a conservationist agenda
10 towards one of how are we just going to make sure that
11 people have food on the table? And that's really a
12 profound thing.

13 DR. BROMLEY: Go ahead, Rod.

14 DR. FUJITA: Thank you for those excellent
15 talks. This is a question for both of you. Do we know
16 enough at this moment to say with some degree of
17 confidence that creating a national system of MPAs out
18 of the current ad hoc array of MPAs that were
19 established for one reason or another, will that
20 national system deliver some benefits that are above
21 and beyond the benefits delivered by the individual
22 MPAs if we put the MPAs in places that make sense

1 ecologically and also are socially optimal?

2 DR. BROMLEY: Yeah, Ed? In other words, what
3 is the value added of stitching together into a
4 national system individual sites?

5 DR. HOUDE: I think you know that it's going
6 to be hard to answer that. We'd like to think that you
7 can add value by a well planned, coordinated effort
8 rather than establishing an MPA here and an MPA there,
9 you establish this national system that has the
10 institutional support and manpower to make it work in
11 the long term so that the evaluations monitoring and
12 performance judgments can be undertaken.

13 I think the way things are going now, that's a
14 little uncertain. When we did the NRC study, we looked
15 at the NOAA sanctuary program and thought it might be a
16 model program by which, you know, this national system
17 could evolve.

18 But what we found was, and it's not
19 criticizing the NOAA sanctuaries, but each one of the
20 sanctuaries was set up for a different reason. And in
21 some cases, I remember in our first meeting we went to
22 the dictionary to see what sanctuary meant, and it

1 basically said a holy place from which everything was
2 protected basically. And we found that wasn't the case
3 at all for most of the sanctuaries. You know, they
4 promoted whale watching or something.

5 So I think that a well planned national system
6 can have some real benefits. You know, I might just
7 speculate a little bit further. Will this committee
8 help us along the way? I think that the answer is yes,
9 it will help us along the way. But will that national
10 system evolve immediately upon termination of this
11 committee? I hope so.

12 DR. BROMLEY: Patrick, go ahead.

13 DR. CHRISTIE: Yeah. I'd like to talk a
14 little bit to the issue of the social dimension,
15 because I think it's an interesting one, and it's
16 actually suggestive of how far we have to go when it
17 comes to the social dimensions.

18 Because there's been a lot of talk about the
19 biophysical need for networking and there's been some
20 good papers on that work. We don't have that much on
21 the social network. But a few ideas come to mind,
22 which are that learning networks.

1 We operate -- we don't live in a vacuum. We
2 learn from other people near us and far away from us.
3 People are increasingly networked socially and through
4 media. So I think it's very important to begin to
5 think about this.

6 I've also learned from personal experience as
7 a practitioner, again, working this context in the U.S.
8 context as well, that a great deal of why some people
9 engage in the work of MPAs is because of pride, and
10 that's related to feeling like there's some meaning in
11 their lives and that things are headed in the right
12 direction, and that they would like to share that
13 message with other people.

14 And so, learning networks and engaging people
15 in cross-visits and the like is a very potent
16 educational tool. And so it does have implications for
17 how maybe a network might be designed, or least the
18 social network that surrounds that network of MPAs.

19 And I also suggest perhaps as a caution as
20 well that you'd want to think about -- you'd want to
21 think strategically about the location of marine
22 protected area because you also wouldn't want the MPAs

1 to become so onerous that you would generate a
2 backlash, and that some areas might be
3 disproportionately affected by -- and effectively feel
4 like, well, why are we carrying all the burden here?

5 So you'd also need to think about that and
6 kind of a balancing of that with ecological dimensions
7 as well. So I think there are really important social
8 dimensions.

9 So I think, in response, yes, I think that
10 there is an important rationale for why to think about
11 a social network, because you'd want to be careful for
12 both encouraging certain things like learning and a
13 learning network, and you want to be careful about not
14 overstepping and creating problems where people, you
15 know, react so strongly against it that it becomes
16 untenable.

17 DR. BROMLEY: Rod, are you satisfied? That's
18 quite a question, given what we're doing.

19 Yeah, Charlie and --

20 DR. HOUDE: Can I just follow up just a
21 little?

22 DR. BROMLEY: Sure, yeah.

1 DR. HOUDE: If after two years of effort, two
2 or three years of effort on your part, if something
3 doesn't emerge immediately, a national network that you
4 can attribute as an outcome of your work, I wouldn't be
5 discouraged.

6 I think, you know, in all of these efforts as
7 we move toward ecosystem-based management, USCOP and
8 Pew Foundation reports and everything, you know, are
9 pushing us in that direction. And the efforts of this
10 committee in developing a national network I think will
11 be important even if it doesn't happen immediately.

12 DR. BROMLEY: Okay. Charlie?

13 DR. WHALE: I have one question for each of
14 you. I'll sneak them in now so I don't have to do a
15 follow-up. First I want to thank you very much for
16 coming and sharing your insights. This has been very
17 helpful.

18 Patrick, there was some really fascinating
19 stuff in your talk, especially the part in the end with
20 the pitfalls of the partnerships or the privatization
21 of the MPA. I wanted to take you up on the bait that
22 you dangled at the beginning of the talk about concerns

1 you have about modeling approaches to designing MPAs.

2 Could you elaborate on that a little bit?

3 DR. CHRISTIE: Okay. I use an analogy of
4 fishing effort displacement, research effort
5 displacement. I have a great deal of respect for
6 people who do the modeling, and I don't want that to be
7 misconstrued. I think it's very important. These are
8 very -- you know, the kinds of things that you can
9 generate from research through modeling is fundamental.

10 I just sometimes get a little bit concerned
11 that when that's perceived as the only research option.

12 And then also I get concerned also about the capturing
13 of research dollars. I just spent all morning meeting
14 with the National Science Foundation regarding trying
15 to research on the epistemic community for and against
16 marine protected areas. And honestly, sometimes I feel
17 like as long as I don't model it, it'll never get
18 funded.

19 And that's worrisome to me, because I think
20 that when you do empirical research, both quantitative
21 and qualitative when you have a complementary research
22 method that's grounded in observation in the field, it

1 actually is quite provocative and convincing to people.
2 You can tell a holistic story. And then if you can do
3 that also with the modeling, all the better, wonderful.
4 Then you have a full picture.

5 And even if you go one more step and you
6 engage people and the resource users in the process and
7 do participatory research, well then we're really
8 covering all our bases. It's just like good, natural
9 science research. You want to have complementary
10 research.

11 And so, again, I just want to say it's more a
12 question of just caution in terms of relative emphasis,
13 more than just saying that it's not useful. It is
14 quite useful, of course. It just should be one of many
15 options.

16 DR. BROMLEY: Okay. I have John Ogden, I have
17 George and I have Rod.

18 DR. WHALE: Mr. Chair, could I do the follow-
19 up?

20 DR. BROMLEY: Oh, Charlie, yeah. Sorry,
21 Charlie.

22 DR. WHALE: Ed, you had mentioned in your talk

1 the challenge that's posed by the real and perceived
2 lack of data on effectiveness in MPAs. And yet part of
3 that problem is that we don't have enough that are
4 adequately designed to actually get the data.

5 Do you, through your work with the committee
6 at the NRC, do you have any insights into how we might
7 get over this hump?

8 DR. HOUDE: Well, I think that, you know, I
9 can just repeat that there's a lack of data. We run up
10 against the problem of being able to fund the kinds of
11 projects that we need to get that data.

12 Again, you have to hope that the efforts of
13 groups like this committee will result in the
14 institution of more experimental sites where we can get
15 some of that data.

16 I don't think that it should stop us from
17 moving in the direction of instituting spatial
18 management in lots of its forms, and that was of course
19 what I was trying to emphasize, that the kinds of
20 protected areas that we call reserves and highly
21 exclusive forms of protection are not the only
22 beneficial kinds of spatial management.

1 But we do need to begin to get some of these
2 sites in place where we can collect the data. And, you
3 know, how that is done, I'm not certain.

4 I think that if we could get enough fish
5 ecologists and reef ecologists and people who are
6 interested in this kind of program together, you know,
7 there would be more funding for it.

8 I want to say just one thing about the
9 modeling, too. You know, I would say that modeling is
10 very important, at least from the ecological viewpoint,
11 because it is a way to learn a lot without instituting
12 big programs on real sites.

13 And we've learned a lot from modeling. We've
14 learned, for instance, that the most productive sites
15 are probably the ones that need to be protected. We've
16 learned that protecting an area can be analogous to
17 reducing fishing mortality in some cases.

18 And we've also learned a lot about the size of
19 marine protected areas that would be needed to be
20 effective. In many cases, we've learned that they have
21 to be large if they're going to be an alternative to
22 other kinds of fishery management.

1 So modeling can be very important,
2 particularly lacking the resources to do big,
3 experimental field studies.

4 DR. BROMLEY: Good. Okay. We will observe
5 the five o'clock deadline, because we have people who
6 are going on to another event. But I do have John and
7 George and Rod on the list.

8 And if you had sort of brief questions, and
9 Mark also wants -- or is that Mark's hand or George's
10 hand? Mark's hand. Okay. John?

11 DR. OGDEN: Well, I just wanted to thank both
12 of you. They were very interesting talks. Ed, I
13 suppose this one is for you. You've used the term
14 "spatial management," and you alluded to the compelling
15 case I think that can be made, for example, in
16 Chesapeake Bay, of including essentially obviously
17 river drainages and corridors for the migration of blue
18 crabs and all of the other kinds of tools.

19 I'm just curious. You know, I had the same
20 concerns about our -- in talking about MPAs largely in
21 the context of fish and largely divorced from some of
22 these other spatial concerns.

1 To what extent do you think almost anyplace we
2 apply the tool of the MPA it will essentially be within
3 the context of these larger spatial management concerns
4 to be successful?

5 DR. HOUDE: Yeah, well, I don't know whether I
6 emphasized it enough. But I think that this is the way
7 we're moving is that zoned usages of large marine
8 system areas, large estuaries in the case of Chesapeake
9 Bay, is what I would foresee in the future.

10 It might well be hypothetically that 75
11 percent of the Chesapeake Bay or the coastal Florida
12 system would be open for anybody's general use in the
13 future. But that some significant portions of these
14 large systems would be zoned, and there would be
15 networks within these zones. That's the kind of
16 evolving management that uses spatial management as one
17 of the major tools that I'd see.

18 DR. BROMLEY: Wonderful. Okay, George?

19 MR. LAPOINTE: Thank you. My question I think
20 is for Dr. Christie. From a social science
21 perspective, has there been enough work to know what
22 kind of the right incubation time for developing an MPA

1 is?

2 You know, you mentioned the example in the
3 Keys of trying to do too much too fast. Dr. Houde
4 mentioned the fact that we need time. Is there some
5 way to tease apart how much time you need in developing
6 components?

7 DR. CHRISTIE: I think it's a very good
8 question. I would not suggest -- it would be a hard
9 question for me to say, yeah, I think there's
10 definitively an answer or a number of years per se.

11 There's been some offerings and estimates in the
12 Philippine context when we were just starting with
13 community-based marine protected areas there where they
14 were saying timing horizons, funding horizons for
15 community-based marine protected areas that were too
16 short if they were any shorter than three to four
17 years.

18 It's an interesting -- it's a delicate
19 process, though, because as Billy Causey points out,
20 actually I the take-home message that I get from
21 Billy's talk is not that they moved too quickly, but
22 they just didn't have the right things in place.

1 They didn't take seriously enough the human
2 dimensions of this, and they weren't consultative
3 enough initially, and they kind of had missed that part
4 of the equation so much. And they missed some obvious
5 resistance, and then they had to kind of go back and
6 start again.

7 But we all know that in fact, and this is
8 based on research in fact, is that provocative do need
9 to see some tangible benefits, and they need to see
10 some movement on the ground. You know, if you have
11 endless planning and planning and discussions and
12 discussions about these kinds of things, people
13 disengage.

14 So there's a fine line. And in fact, this is
15 sort of like -- and people are smiling here. I'm
16 wondering why, if I've touched on something. I'm not
17 sure.

18 (Laughter.)

19 DR. BROMLEY: We'll let you know if you touch
20 on something.

21 DR. CHRISTIE: I feel like a participant
22 observer here. So, yeah, there's a fine line. And

1 actually, this is why people who are actually
2 practitioners play such an important role because they
3 have sort of a sixth sense for this kind of thing, that
4 they're really good at it. They can sense when you're
5 going to slowly and when you're going too quickly.

6 And that's not so much a research question;
7 it's more a question of the art of doing marine
8 protected areas.

9 DR. BROMLEY: Good. Okay. Rod?

10 DR. FUJITA: Oh. This is just a comment on
11 the dialogue on models. It's a little troubling,
12 because it makes it sound like models and empirical
13 research are two different things and never the twain
14 shall meet.

15 But I would argue that all empirical research
16 is guided by a model, whether it's conceptual in your
17 brain, or whether it's articulated as a bunch of stated
18 variables and their relationships. And the utility of
19 the model is to just articulate and make transparent
20 those assumptions about stated variables and
21 relationships.

22 And I just -- I guess that's all I was -- I

1 mean, it's troubling to hear that the perception that
2 you're getting from your visit to NSF is that you've
3 got to write a mathematical equation or something in
4 order to get funding for this kind of empirical
5 research. They should be mutually enforcing with the
6 model generating hypotheses, the empirical research
7 testing hypotheses and generating new hypotheses that
8 go back in the model. It's heuristic.

9 DR. CHRISTIE: Yeah. I would agree with you
10 completely. I think that's what, when you have solid,
11 well designed research, I would agree with you very
12 much.

13 And actually, to some degree, and I know
14 Richard when I present that sort of link of correlation
15 coefficients and that very complex things he explains,
16 that's a model. That is a model for human interaction
17 surrounding the effectiveness of a marine protected
18 area.

19 So I'm sorry if I -- you know, I think you're
20 right. I think it's important to be careful with those
21 terminologies. I think sometimes I guess when I read
22 some of the modeling papers, you know, I tend to be an

1 empiricist, and I really want those models to -- you
2 know, I want there to be a linkage between that as
3 well, so.

4 DR. BROMLEY: Okay. Our last word from Mark.

5 DR. HIXON: The last word, wow. Thank you.

6 I'd like to thank you both for your informative
7 presentations. My request is for Dr. Houde.

8 You mentioned the value of MPAs in restoring
9 old growth age structure without elaboration. And I
10 was wondering if you could just very briefly summarize
11 the recent data from cod and rockfish and other groups
12 of fishes showing the qualitative value of older
13 females in replenishing populations and why MPAs may be
14 the most effective means of establishing that old
15 growth age structure.

16 DR. BROMLEY: Can you do that quickly, Ed?

17 DR. HOUDE: I can try to do it very quickly.

18 I think Mark can give me a better answer than I'm going
19 to give him.

20 (Laughter.)

21 DR. BROMLEY: I wondered why he was asking
22 you. He wants you to site his work. That's what he's

1 asking you to do.

2 DR. HOUDE: He knows I'm involved in AAAS
3 session on Saturday that addresses the topic. MPAs are
4 one way to increase the age structure. I showed you
5 Paison's data on rockfish.

6 For fishes that are site specific like
7 rockfishes, there's a great potential to increase the
8 age structure.

9 This increases the fecundity. We used to say
10 that that didn't make any difference, that recruitment
11 wasn't much dependent upon having lots of adult stock
12 or having stock that was of a particular age structure.

13 But we now know that older females are
14 sometimes producing much better quality gametes and
15 offspring than younger females, and that recruitment
16 levels can be higher when you add what we call age
17 diversity to the population.

18 Marine protected areas are a way to increase
19 that age diversity. Diversity is good.

20 DR. HIXON: So instead of marine protected
21 areas, why don't we just use slot limits?

22 DR. BROMLEY: Was this an inside joke? I

1 didn't hear it.

2 DR. HIXON: No, no. It's just a question.

3 DR. BROMLEY: I didn't hear it. What?

4 DR. HIXON: So if, given that old growth age
5 structure is valuable, why don't we just use slot
6 limits instead of marine protected areas?

7 DR. HOUDE: That might work for some species
8 like striped bass, for instance, it might work. But
9 for more marine species that live over deeper water,
10 particularly those that have swim bladders and even
11 those that don't, when you haul up the big fish that
12 you want to release and put them back in the water, you
13 put them back dead generally.

14 DR. HIXON: Thank you.

15 DR. BROMLEY: Wonderful. Wonderful. Okay.
16 Lauren has an announcement.

17 Let us thank our speakers again.

18 (Applause.)

19 DR. BROMLEY: Okay. Lauren has an
20 announcement. My announcement before I give it to
21 Lauren is that we start again at eight in the morning.
22 But, Lauren, go ahead.

1 MS. WENZEL: I just wanted to let folks know,
2 if you plan to go to the reception, you can see me and
3 pick up a ticket, or you can see Bunny, and there are
4 directions from the metro on the ticket.

5 There may be a shorter way if it's raining
6 that involves less outside time. And I can tell you
7 how to do that.

8 And if anyone changed their mind, there's
9 still room to go to the reception.

10 DR. BROMLEY: Okay. Thank you again. We had
11 a good day. Yeah, Rod?

12 DR. FUJITA: I would request members of the
13 committee to review our two-pager on why we are here,
14 why --

15 DR. BROMLEY: Has it been distributed?

16 DR. FUJITA: I'm just distributing it now.

17 DR. BROMLEY: Oh, you're distributing it?
18 Okay. Yeah. When we come at eight in the morning, our
19 first task will be to figure out what we want to do.
20 So your hope would be, Rod, that we'll read this
21 overnight.

22 Thanks, all. You were quite patient today.

1 See you in the morning at eight.

2 (Whereupon, at 4:58 p.m., the conference
3 recessed, to reconvene at 8:00 a.m. on February 17,
4 2005.)

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